

Exhibit 1

**WR Grace**

SR00000393

Bankruptcy Form 10**Index Sheet**

Claim Number: 00004208

Receive Date: 03/20/2003

Multiple Claim Reference

Claim Number _____	<input type="checkbox"/> MMPOC	Medical Monitoring Claim Form
	<input type="checkbox"/> PDPOC	Property Damage
	<input type="checkbox"/> NAPO	Non-Asbestos Claim Form
	<input type="checkbox"/>	Amended
Claim Number _____	<input type="checkbox"/> MMPOC	Medical Monitoring Claim Form
	<input type="checkbox"/> PDPOC	Property Damage
	<input type="checkbox"/> NAPO	Non-Asbestos Claim Form
	<input type="checkbox"/>	Amended

Attorney Information

Firm Number: _____ Firm Name: _____

Attorney Number: _____ Attorney Name: _____

Zip Code: _____

Cover Letter Location Number: _____

Attachments Medical Monitoring	Attachments Property Damage	Non-Asbestos
<input type="checkbox"/> TBD	<input type="checkbox"/> TBD	<input checked="" type="checkbox"/> Other Attachments
<input type="checkbox"/> TBD	<input type="checkbox"/> TBD	
<input type="checkbox"/> TBD	<input type="checkbox"/> TBD	
<input type="checkbox"/> TBD	<input type="checkbox"/> TBD	
<input type="checkbox"/> TBD	<input type="checkbox"/> TBD	
	<input type="checkbox"/> Other Attachments	
Other	<input type="checkbox"/> Non-Standard Form	
	<input type="checkbox"/> Amended	
	<input type="checkbox"/> Post-Deadline Postmark Date	

UNITED STATES BANKRUPTCY COURT FOR THE DISTRICT OF Delaware		GRACE NON-ASBESTOS PROOF OF CLAIM FORM
Name of Debtor: W.R. GRACE & CO., et al.		Case Number 01-01139(jkf)
<p>NOTE: Do not use this form to assert an Asbestos Personal Injury Claim, a Settled Asbestos Claim or a Zonolite Attic Insulation Claim. Those claims will be subject to a separate claims submission process. This form should also not be used to file a claim for an Asbestos Property Damage Claim or Medical Monitoring Claim. A specialized proof of claim form for each of these claims should be filed.</p>		
Name of Creditor (The person or other entity to whom the Debtor owes money or property): KANEB PIPE LINE OPERATING PARTNERSHIP, L.P.		THIS SPACE IS FOR COURT USE ONLY
Name and address where notices should be sent: KANEB PIPE LINE OPERATING PARTNERSHIP, L.P. ATTN: Edward D. Doherty 2435 N. Central Expwy., Suite 700 Richardson, TX 75080		
Account or other number by which creditor identifies Debtor:		<input type="checkbox"/> Check box if you are aware that anyone else has filed a proof of claim relating to your claim. Attach copy of statement giving particulars. <input type="checkbox"/> Check box if you have never received any notices from the bankruptcy court in this case. <input checked="" type="checkbox"/> Check box if the address differs from the address on the envelope sent to you by the court.
Corporate Name, Common Name, and/or d/b/a name of specific Debtor against whom the claim is asserted: GRACE ENERGY CORPORATION; W.R. GRACE & CO. - CONN.		Check here <input type="checkbox"/> replaces if this claim <input type="checkbox"/> amends a previously filed claim, dated: _____
1. Basis for Claim <input type="checkbox"/> Goods sold <input type="checkbox"/> Services performed <input checked="" type="checkbox"/> Environmental liability <input type="checkbox"/> Money loaned <input type="checkbox"/> Non-asbestos personal injury/wrongful death <input type="checkbox"/> Taxes <input checked="" type="checkbox"/> Other <u>contractual indemnity</u>		
<input type="checkbox"/> Retiree benefits as defined in 11 U.S.C. § 1114(a) <input type="checkbox"/> Wages, salaries, and compensation (fill out below) Your SS #: _____ Unpaid compensation for services performed from _____ to _____ (date)		
2. Date debt was incurred: <u>December 21, 1992</u>		3. If court judgment, date obtained:
4. Total Amount of Claim at Time Case Filed: If all or part of your claim is secured or entitled to priority, also complete item 5 below. <input type="checkbox"/> Check this box if claim includes interest or other charges in addition to the principal amount of the claim. Attach itemized statement of all interest or additional charges.		\$ 6,250,258.00
5. Classification of Claim. Under the Bankruptcy Code all claims are classified as one or more of the following: (1) Unsecured Nonpriority, (2) Unsecured Priority, (3) Secured. It is possible for part of a claim to be in one category and part in another. CHECK THE APPROPRIATE BOX OR BOXES that best describe your claim and STATE THE AMOUNT OF THE CLAIM AT TIME CASE FILED.		
<input type="checkbox"/> SECURED CLAIM (check this box if your claim is secured by collateral, including a right of setoff) Brief Description of Collateral: <input type="checkbox"/> Real Estate <input type="checkbox"/> Other (Describe briefly) _____ Amount of arrearage and other charges at time case filed included in secured claim above, if any: \$ _____ Attach evidence of perfection of security interest <input checked="" type="checkbox"/> UNSECURED NONPRIORITY CLAIM A claim is unsecured if there is no collateral or lien on property of the debtor securing the claim or to the extent that the value of such property is less than the amount of the claim.		<input type="checkbox"/> UNSECURED PRIORITY CLAIM - Specify the priority of the claim. <input type="checkbox"/> Wages, salaries, or commissions (up to \$4650), earned not more than 90 days before filing of the bankruptcy petition or cessation of the debtor's business, whichever is earlier - 11 U.S.C. § 507(a)(3). <input type="checkbox"/> Contributions to an employee benefit plan - 11 U.S.C. § 507(a)(4). <input type="checkbox"/> Taxes or penalties of governmental units - 11 U.S.C. § 507(a)(7). <input type="checkbox"/> Other - Specify applicable paragraph of 11 U.S.C. § 507(a)(____).
6. Credits: The amount of all payments on this claim has been credited and deducted for the purpose of making this proof of claim.		This Space is for Court Use Only
7. Supporting Documents: Attach copies of supporting documents, such as promissory notes, purchase orders, invoices, itemized statements of running accounts, contracts, court judgments, mortgages, security agreements and evidence of perfection of lien. DO NOT SEND ORIGINAL DOCUMENTS. If the documents are not available, explain. If the documents are voluminous, attach a summary.		
8. Acknowledgement: Upon receipt and processing of this Proof of Claim, you will receive an acknowledgement card indicating the date of filing and your unique claim number. If you want a file stamped copy of the Proof of Claim form itself, enclose a self-addressed envelope and copy of this proof of claim form.		
Date 3/18/03	Sign and print the name and title, if any, of the creditor or other person authorized to file this claim (attach copy of power of attorney, if any): KANEB PIPE LINE COMPANY LLC, General Partner By: <u>Edward D. Doherty</u> Edward D. Doherty, Chairman & C.E.O.	

WR Grace BF.18.71.3542
 00004208
 SR=393

REC'D MAR 20 2003

¹ See General Instructions and Claims Bar Date Notice and its exhibits for names of all Debtors and "other names" used by the Debtors.

SPECIFIC INSTRUCTIONS FOR COMPLETING GRACE NON-ASBESTOS PROOF OF CLAIM FORMS

The instructions and definitions below are general explanations of the law. In particular types of cases or circumstances, there may be exceptions to these general rules.

This Proof of Claim form is for Creditors who have Non-Asbestos Claims against any of the Debtors. Non-Asbestos Claims are any claims against the Debtors as of a time immediately preceding the commencement of the Chapter 11 cases on April 2, 2001 other than Asbestos Personal Injury Claims, Asbestos Property Damage Claims, Zonolite Attic Insulation Claims, Settled Asbestos Claims or Medical Monitoring Claims, as defined on the enclosed General Instructions. More specifically, Non-Asbestos Claims are those claims against one or more of the Debtors, whether in the nature of or sounding in tort, contract, warranty or any other theory of law or equity for, relating to or arising by reason of, directly or indirectly, any injury, damage or economic loss caused or allegedly caused directly or indirectly by any of the Debtors or any products or materials manufactured, sold, supplied, produced, specified, selected, distributed or in any way marketed by one or more of the Debtors and arising or allegedly arising directly or indirectly, from acts or omissions of one or more of the Debtors, including, but not limited to, all claims, debts, obligations or liabilities for compensatory and punitive damages.

Administrative Expenses: Those claims for, among other things, the actual, necessary costs and expenses of preserving the estate as defined in Section 503 of the Bankruptcy Code that arose after the commencement of the case. A request for payment of an administrative expense may be filed pursuant to Section 503 of the Bankruptcy Code. This form should not be used to make a claim for an administrative expense.

Secured Claim: A claim is a secured claim to the extent that the creditor has a lien on property of the debtor (collateral) that gives the creditor the right to be paid from that property before creditors who do not have liens on the property. Examples of liens are a mortgage on real estate and a security interest in a car, truck, boat, television set, or other item of property. A lien may have been obtained through a court proceeding before the bankruptcy case began; in some states a court judgment is a lien. In addition, to the extent a creditor also owes money to the debtor (has a right to setoff), the creditor's claim may be a secured claim. (See also Unsecured Claim.)

Unsecured Claim: If a claim is not a secured claim, it is an unsecured claim. Unsecured claims are those claims for which a creditor has no lien on the debtor's property or the property on which a creditor has a lien is not worth enough to pay the creditor in full.

Unsecured Nonpriority Claim: Certain types of unsecured claims are given priority, so they are to be paid in bankruptcy cases before most other unsecured claims (if there is sufficient money or property available to pay these claims). The most common types of priority claims are listed on the proof of claim form. Unsecured claims that are not specifically given priority status by the bankruptcy laws are classified as Unsecured Nonpriority Claims.

Information about Creditor: Complete this section giving the name, address, and telephone number of the creditor to whom the debtor owes money or property, and the debtor's account number, if any. If anyone else has already filed a proof of claim relating to this debt, if you never received notices from the court which sent notice, or if this proof of claim replaces or amends a proof of claim that was already filed, check the appropriate box on the form.

1. **Basis for Claim:** Check the type of debt for which the proof of claim is being filed. If the type of debt is not listed, check "Other" and briefly describe the type of debt. If you were an employee of the debtor, fill in your social security number and the dates of work for which you were not paid.
2. **Date Debt Incurred:** Fill in the date the debt was first owed by the debtor.
3. **Court Judgments:** If you have a court judgment for this debt, state the date the court entered the judgment.
4. **Amount of Claim:** Insert the amount of claim at the time the case was filed in the appropriate box based on your selected Classification of Claim in item 5. If interest or other charges in addition to the principal amount of the claim are included, check the appropriate place on the form and attach an itemization of the interest and charges.
5. **Classification of Claim:** Check either Secured, Unsecured Nonpriority or Unsecured Priority as appropriate. (See Definitions above.)

Unsecured Priority Claim: Check the appropriate place if you have an unsecured priority claim, and state the amount entitled to priority. (See Definitions, above). A claim may be partly priority and partly nonpriority if, for example, the claim is for more than the amount given priority by the law. Check the appropriate place to specify the type of priority claim.
6. **Credits:** By signing this proof of claim, you are stating under oath that in calculating the amount of your claim, you have given the debtor credit for all payments received from the debtor.
7. **Supporting Documents:** You must attach to this proof of claim form, copies of documents that show the debtor owes the debt claimed or, if the documents are too lengthy, a summary of those documents. If documents are not available, you must attach an explanation of why they are not available.

Be sure to date the claim and place original signature of claimant or person making claim for creditor where indicated at the bottom of the claim form. Please type or print name of individual under the signature. Be sure all items are answered on the claim form. If not applicable, insert "Not Applicable".

RETURN CLAIM FORM (WITH ATTACHMENTS, IF ANY) TO THE FOLLOWING CLAIMS AGENT FOR THE DEBTORS:

Claims Processing Agent
Re: W. R. Grace & Co. Bankruptcy
P.O. Box 1620
Faribault, MN 55021-1620

The Bar Date for filing all NON-ASBESTOS CLAIMS against the Debtors is March 31, 2003 at 4:00 p.m. Eastern Time.



KANE B PIPE LINE
OPERATING
PARTNERSHIP, L.P.



VIA CERTIFIED MAIL
NO. 7000 1670 0012 9105 2476
RETURN RECEIPT REQUESTED

March 18, 2003

Claims Processing Agent
W.R. Grace & Co. Bankruptcy
P.O. Box 1620
Faribault, MN 55021-1620

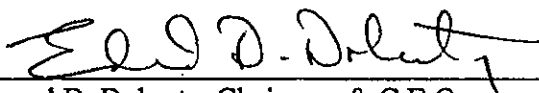
Re: GRACE NON-ASBESTOS PROOF OF CLAIM FORM
In re: W.R. GRACE & CO., et al. / Chapter 11
U.S. Bankruptcy Court Case No. 01-01139 (JKF)

Ladies/Gentlemen:

Attached is an executed Non-Asbestos Proof of Claim Form and supporting documents, evidencing Kaneb Pipe Line Operating Partnership, L.P.'s claims against the debtor-in-bankruptcy, W.R. Grace & Co., et al., along with (i) a self-addressed, postage prepaid envelope and (ii) duplicate original proof of claim form, which we request be file stamped and returned to us as indicated. In addition, we understand that we will receive an acknowledgment card indicating the date of filing and our unique claim number. Thank you.

Very truly yours,

KANE B PIPE LINE OPERATING PARTNERSHIP, L.P.
By: Kaneb Pipe Line Company LLC, General Partner


Edward D. Doherty, Chairman & C.E.O.

EDD/gf
Enclosures



KANEB PIPE LINE
OPERATING
PARTNERSHIP, L.P.



A KANER COMPANY

November 6, 2001

VIA FACSIMILE

Grace Energy Corporation
Two Galleria Tower, Suite 1500
13455 Noel Road
Dallas, TX 75240-6681

Attention: Chief Counsel
Facsimile No. (214)722-0215

Re: Barnes Ferry Road Pipeline – Possible Leak – Macon, Georgia

Gentlemen:

In a letter dated February 26, 1998, we notified your company of potential claims for indemnity and defense arising out of an investigation for soil and groundwater contamination along the Barnes Ferry Road pipeline in Macon, Georgia. This investigation was conducted by the Georgia Geological Survey (GGS), which is affiliated with the Georgia Environmental Protection Division.

On October 11, 2001, the GGS notified us that the results of the investigation reveal contamination is present in this area. This contamination, which involves JP-4 jet fuel, is likely due to a pipeline leak occurring prior to 1993. For your information, this contamination may involve several residential home sites near the pipeline. At least one irrigation well located on an adjacent landowner's property has already tested positive for petroleum contamination.

Pursuant to the provisions of the STS Agreement and Plan of Merger dated December 21, 1992 between Grace Energy Corporation and Kaneb Pipe Line Operating Partnership, L.P., inter alia, Kaneb hereby notifies you of its claim for breaches of Section 6.11 of that Agreement, among other claims which may exist, which result in indemnity and defense being due to Kaneb from Grace under Article 13 of the Agreement.

ST Services also hereby notifies and makes demand upon Grace for indemnity and defense against any additional third party claims, actions, suits or proceedings, judgments, orders, writs or injunctions that may arise out of or relate to the above alleged violation of environmental laws, rules or regulations.

2435 N. Central Expwy, Suite 700
Richardson, Texas 75080
phone 972.699.4000
fax 972.699.4025

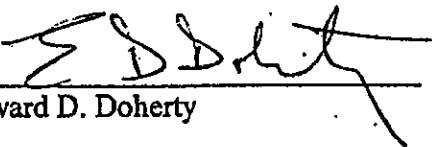
November 6, 2001

Page 2.

We will keep you informed as these matters proceed and invoice you for such amounts that exceed the amounts Kaneb is contractually obligated to pay before seeking reimbursement from Grace.

Very truly yours,

KANEB PIPE LINE OPERATING PARTNERSHIP, L.P.
By Kaneb Pipe Line Company LLC, General Partner


Edward D. Doherty

EDD/mp

Via Facsimile
cc: W. R. Grace & Co.
One Town Center Road
Boca Raton, FL 33486

Attn: Secretary
Facsimile No. ~~(407) 362-1635~~

(SLH)
410-531-4414

Kaneb Pipe Line Company

Edward D. Doherty
Chairman and
Chief Executive Officer

February 26, 1998

Grace Energy Corporation
Two Galleria Tower, Suite 1500
13455 Noel Road
Dallas, Texas 75240-6681
Attention: Chief Counsel

Gentlemen:

Pursuant to the provisions of the STS Agreement and Plan of Merger dated December 21, 1992 ("the Agreement") between Grace Energy Corporation ("Grace") and Kaneb Pipe Line Operating Partnership, L.P. ("Kaneb"), inter alia, Kaneb hereby notifies you of the following claims for breaches of Section 6.11 of that Agreement which may result in indemnity being due to Kaneb from Grace under Article 13 of the Agreement.

The following list covers terminals which Kaneb or its affiliates purchased from Grace pursuant to the Agreement.

Virginia Beach, Virginia:

Soil contamination has been identified along the North Landing Road during preparation for a road-widening project. A Kaneb affiliate paid for the remediation required to date by the Virginia Department of Transportation and the Virginia Department of Environmental Quality.

Texas City, Texas:

A Texas City port investigation has discovered contamination on StanTrans leased property. No damages or action have been required as yet.

Homestead, Florida:

Soil and groundwater contamination adjacent to the pipeline right of way along Dixie Highway in Dade County has been discovered and is the subject of a Dade County Environmental Resources Management file.

Macon, Georgia:

Soil and groundwater contamination along pipeline right of way adjacent to the flight line at Warner Robins Air Force Base is being investigated by the Air Force.

A Georgia Geological Survey is investigating petroleum contamination along the pipeline right of way adjacent to Barnes Ferry Road. Geological Survey is also investigating previous contamination along Faegin Road.

Montgomery, Alabama:

Soil and groundwater contamination is present and has migrated offsite.

Winona, Minnesota:

State of Minnesota has required remediation of fertilizer contamination and soils and groundwater.

Milwaukee, Wisconsin:

Soil and groundwater contamination is present. Shell Oil is responsible for mediation under the terms of the acquisition. However, Kaneb's affiliate will be forced to implement remediation under certain circumstances.

Dumright, Oklahoma:

The U.S. Environmental Protection Association is conducting site reconnaissance in regard to possible contamination.

Indianapolis, Indiana:

Soil and groundwater contamination is present at both terminal areas. Mobil Oil is responsible for remediation of one terminal area under the terms of the acquisition. However, Kaneb's affiliate will be forced to implement in even the Mobil area remediation under certain circumstances.

Bremen, Georgia:

Soil and groundwater contamination was discovered on property after removal of underground tanks. Kaneb's affiliate is currently conducting groundwater monitoring and may be required to remediate groundwater.

The following are facilities not acquired by Kaneb or its affiliates but where an environmental liability may be imposed on Kaneb or its affiliates.

Sandwich/Otis Air Force Base, Massachusetts:

State of Massachusetts and the Federal Government are seeking responsibility for remediation of alleged contamination due to pipeline leaks in the 1970's. Grace has made a claim and is suing Kaneb for \$1,600,000 and other damages in this regard. Kaneb and its affiliates deny ownership and liability for damages arising from this pipeline.

Somerville, New Jersey:

Possible groundwater and soil contamination may exist.

Kirtland Air Force Base, New Mexico:

Possible groundwater and soil contamination may exist.

Conway, Arkansas:

Possible groundwater and soil contamination may exist.

St. Ignace, Michigan:

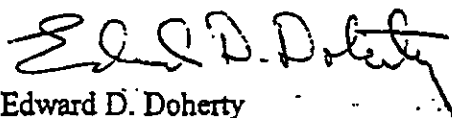
Possible groundwater and soil contamination may exist.

Scotia, New York:

Possible groundwater and soil contamination may exist.

We will keep you informed as these matters proceed and invoice you for such amounts which exceed the amounts Kaneb is contractually obligated to pay before seeking indemnity from Grace.

Very truly yours,

A handwritten signature in dark ink, appearing to read "E. D. Doherty", with a stylized flourish at the end.

Edward D. Doherty

EDD/cpw

cc: W. R. Grace & Co.
One Town Center Road
Boca Raton, FL 33486
Attn: Secretary



 A KANEB COMPANY

Memorandum

TO: Greg Fata, Esquire
FROM: Jim Siciliano
RE: Additional Information – Macon, GA
DATE: February 13, 2003

Attached is a letter report providing a summary of the findings for Area 1 of the Macon – Barnes Ferry Road Assessment. Mr. Guentert, of the Georgia Geological Survey, agreed that a brief letter report was appropriate for Area 1 in light of the need for additional assessment. A more comprehensive report will be prepared once the additional assessment work is completed.

Please let me know if you need any additional information.

From the desk of...

James A. Siciliano
Vice President
ST Services
17304 Preston Road, Suite 1000
Dallas, Texas 75252

PH: (972) 931-8065
FAX: (972) 931-6526
EMAIL: jim_siciliano@stservices.net
Web Page: www.stservices.net

CODY EHLERS GROUP

EHS Consulting and Services

101 N. Woodland Blvd.
Suite 205
DeLand, FL 32720
Phone: (386) 738-5556
Fax: (386) 734-2475
Email: adrian.kent@mindspring.com

February 10, 2003

Mr. Jim Guentert, P.G.
Georgia Geological Society, Room 400
19 Martin Luther King, Jr. Drive SW
4th Floor
Atlanta, GA 30334

**Subject: Interim Investigation Report – Area 1, Barnes Ferry Road
ST Services, Macon, Bibb County, Georgia**

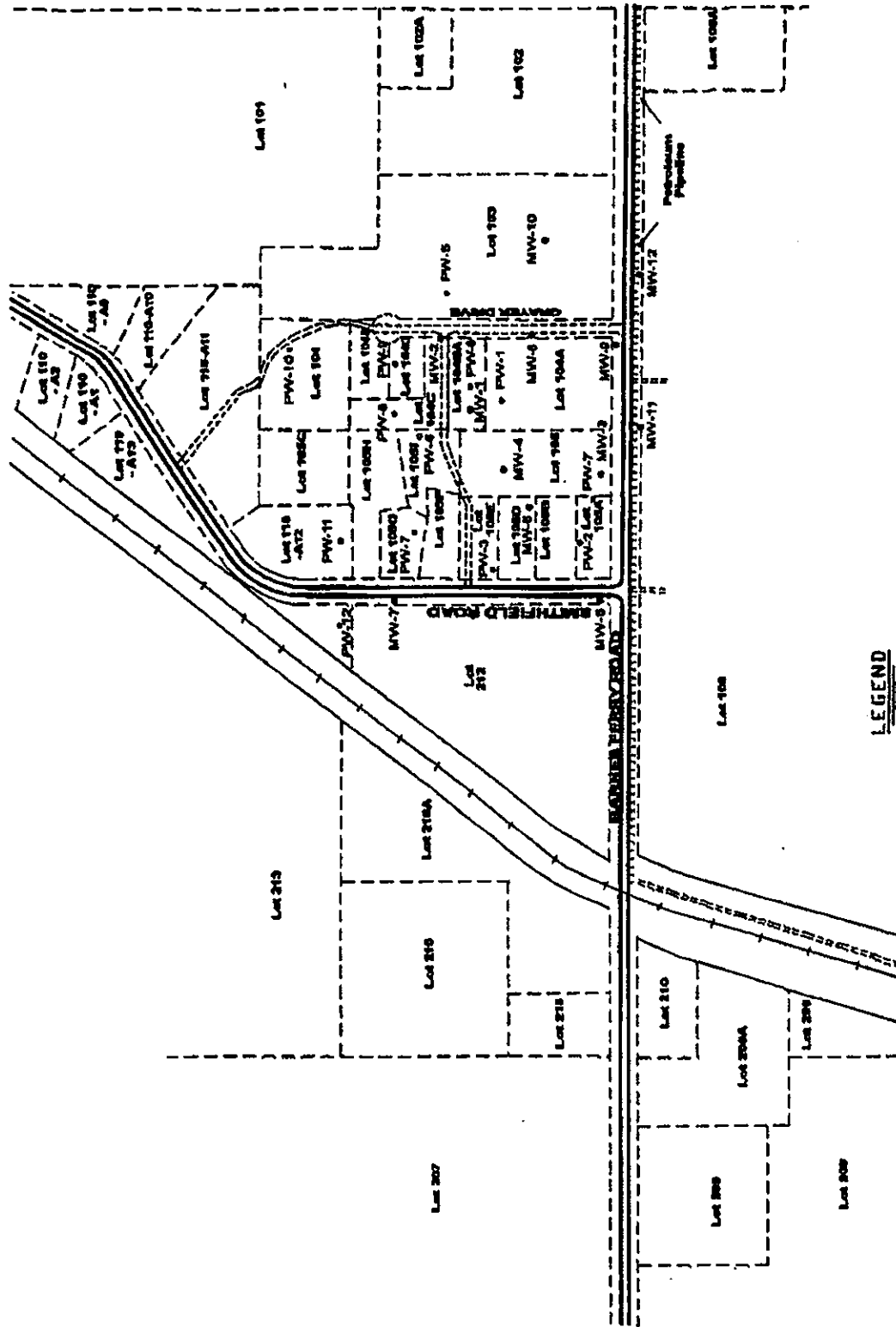
Dear Mr. Guentert:

The following actions were accomplished at the referenced site between April and December 2002:

- Obtained access for well sampling and monitoring well installation from owners of Lots 105A, 105D, 105E, 105G, 110-A12, 104BA, 104A, 103 and 105. The owners of Lots 104C, 104D, 104E, and 104, either refused access or were non-responsive.
- Obtained access from Bibb County to install monitoring wells and soil borings on their right-of-way
- Installed 36 shallow (10 feet) soil borings along the south side of Barnes Ferry Road. See Figure 2.
- Analysis of selected soil samples for EPA Methods 8020 and 8100 (Tables 1 and 2).
- Installed 8 continuous soil borings and monitoring wells (MW-5 through MW-12 (Figure 3).
- Gauged and sampled MW-1 through MW-12.
- Sampled private supply wells PW-1, PW-2, PW-5, PW-7, PW-11, and PW-12.
- Analyzed groundwater samples collected for EPA Methods 602, 610, and lead (Tables 3 and 4).

Preliminary results for the investigation conducted to date are:

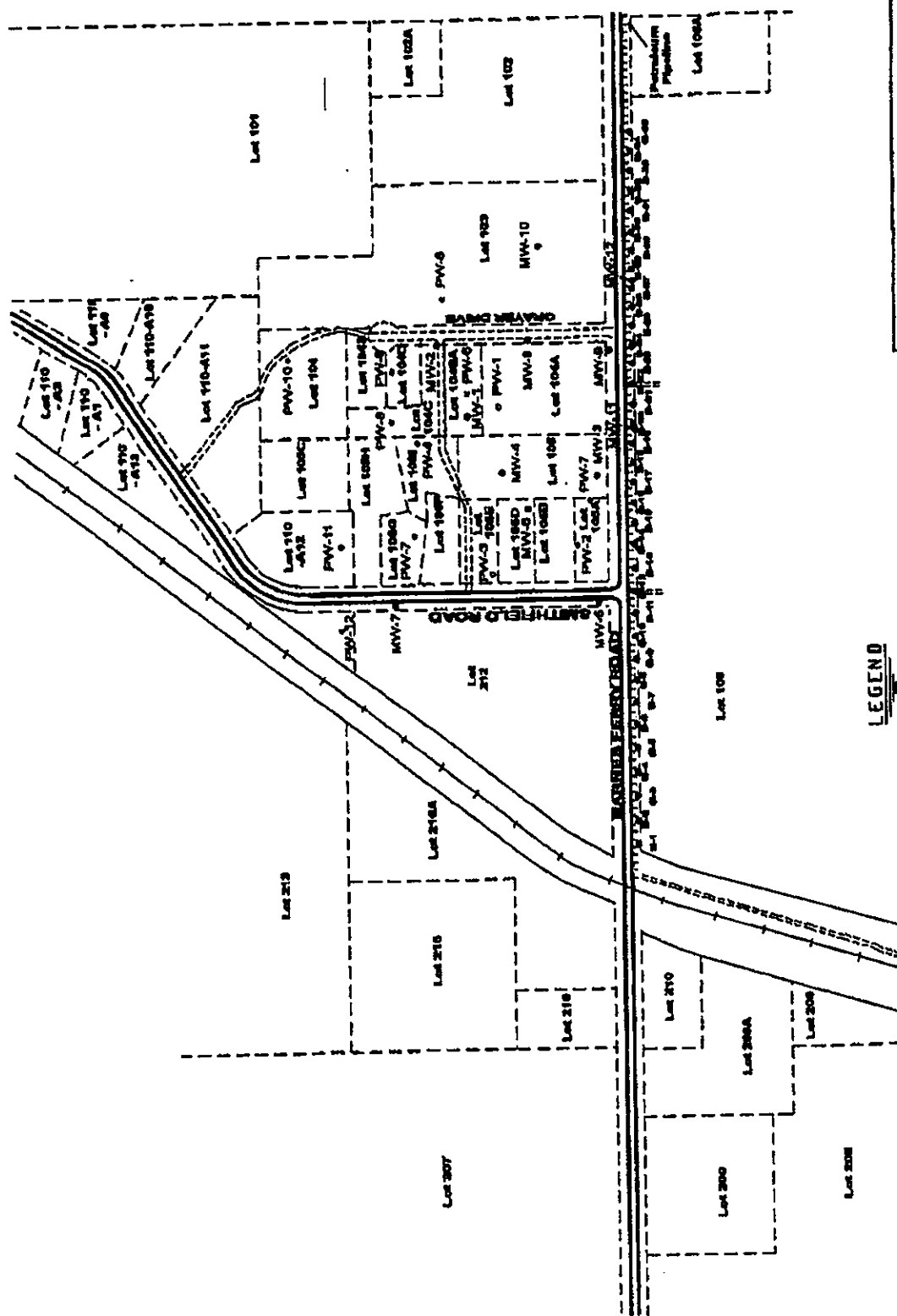
- Shallow soil contamination was detected by field screening in soils from Borings B-1, B-2, B-23, B-24, B-25, B-26, and B-29. The presence or absence of contamination was based on a 500 ppm or greater reading on an OVA/PID, calibrated to a 100 ppm isobutylene standard. Significant concentrations of BTEX and PAHs were detected by laboratory analyses of soil samples collected from MW-6, 8, 9, 10, 11 and 12 (Table 1). These samples were generally collected at a depth just above the detection of saturated sediments.
- Light non-aqueous phase liquid (LNAPL) was detected in wells MW-3, MW-4, MW-6, and MW-11. The LNAPL thickness detected was between 1.25 feet in MW-6 and 1.56 feet in MW-3 and 11.
- All of the monitoring wells sampled except for MW-7, either exhibited LNAPL or concentrations greater than the USEPA 5 ug/l benzene standard (Table 3).
- All private supply wells sampled were ND for all EPA Method 602 and 610 compounds (Table 4).



LEGEND

- PRIVATE SUPPLY WELL
- MONITORING WELL

CODY EHLERS GROUP 1115 SOUTHWEST 1ST AVENUE SUITE 100 ATLANTA, GEORGIA 30309		DATE REVISED:
		REVISIONS BY:
		DATE: 12/12/08
		SCALE: 1" = 400' ±
		STATE ST: 152
		APPROVED BY: LVC
SITE PLAN FOR BARNES FERRY ROAD AREA 1		
FIGURE 1	BY SERVICES	
DRAWN BY:	BARNES FERRY ROAD AREA 1	
	MACON, GIBB COUNTY, GA	

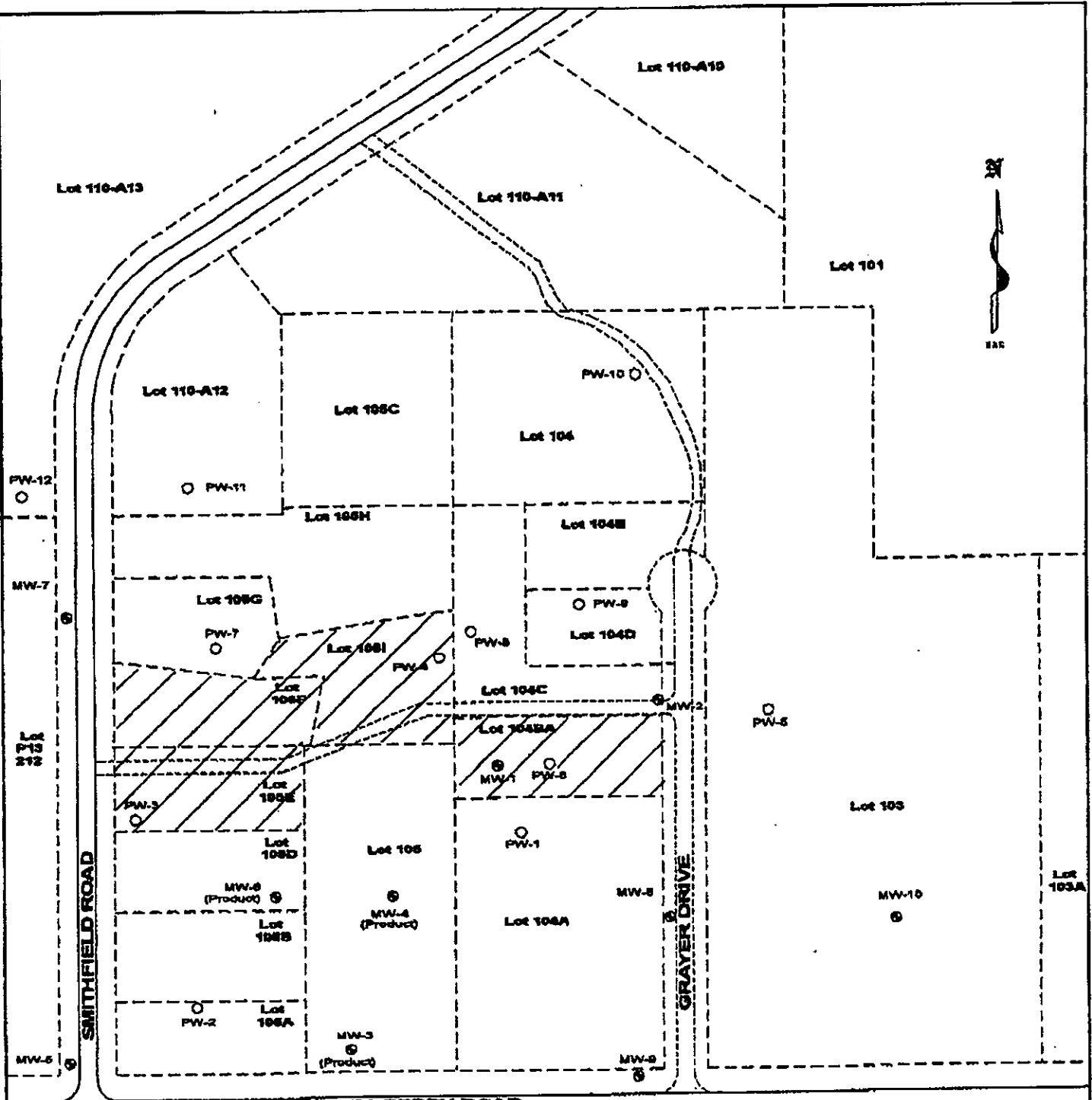


LEGEND

- PRIVATE SUPPLY WELL
- MONITORING WELL
- GEOPROBE BORING

DATE RECEIVED:	
RECEIVED BY:	
DATE:	11/12/82
SCALE:	1 in. = 100 ft.
SEALIN BY:	LOS
OFFICER BY:	602

<p>CODY ENGLISH GROUP THE CORDONING AND MAPPING 1612 W. FORTSHAM AVE., SUITE 202 IRVING, TEXAS 75039</p>	<p>LOCATION OF CHOPROPE BORINGS AT BARNES FERRY ROAD AREA 1</p>
<p>FIGURE 2</p>	<p>BY SERVICES BARNES FERRY ROAD AREA 1 WACON, RICE COUNTY, GA</p>

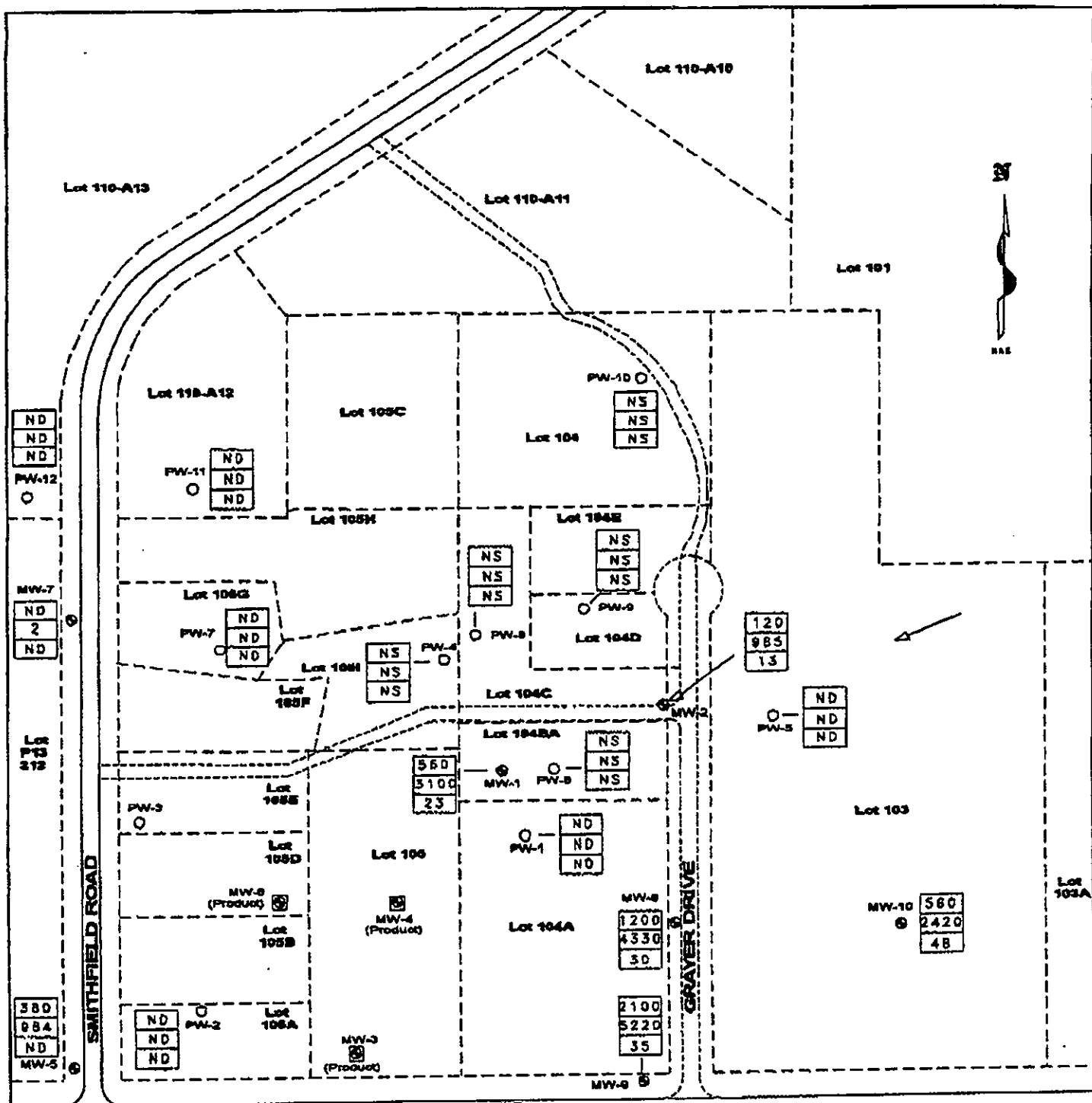


LEGEND

- MONITOR WELL
- PRIVATE WELL
-  SERVED BY MUNICIPAL WATER

Petroleum Pipeline

CODY ENLERS GROUP WELL CONSULTING AND SERVICES 101 N. WOODLAND BLVD., SUITE 202 ORLANDO, FLORIDA 32709		DATE REVIEWED: 09/19/02
WELL LOCATIONS BARNES FERRY ROAD AREA 1 MACON, GA		REVIEWED BY: LUT
		DATE: 12/12/02
		SCALE: 1" = 200' FS
FIGURE 3	ST SERVICES PIPELINE BARNES FERRY ROAD MACON, GA	DRAWN BY: LUT
DRAWING NO.:		APPROVED BY: AVX



LEGEND

- PRIVATE SUPPLY WELL
- ⊙ MONITOR WELL
- ⊗ MONITOR WELL WITH FREE PRODUCT

00
00
00

BENZENE ug/L
TOTAL BTEX ug/L
TOTAL PAHs ug/L

ND NOT DETECTED
NS NOT SAMPLED

Petroleum Pipeline

CODY KILERS GROUP
FOR CONSULTING AND SERVICES
101 N. WOODLAND BLVD., SUITE 200
DALLAS, TEXAS 75203

**GROUNDWATER ANALYTICAL RESULTS
FOR PRIVATE AND MONITORING WELLS
AT BARNES FERRY ROAD AREA 1**

PHASE 4
DRAWN BY: J. L.

BY SERVICES PIPELINE
BARNES FERRY ROAD
MAGN, GA

DATE REVIEWED:
10/10/02
REVIEWED BY:
LOR

DATE: 12/10/02
SCALE: 1 in. = 200 ft

DRAWN BY: LOR
APPROVED BY: SVC

TABLE 1
SOIL ANALYTICAL RESULTS
FOR MONITOR WELL INSTALLATION

ST Services
Barnes Ferry Road - Area 1, Macon, GA

LOCATION	DEPTH (ft bbl)	DATE SAMPLED	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES	TOTAL STEX	MTBE	NAPHTHALENE	METHYL NAPHTHALENE	Total PAH (EPA Method 8260)
MW-5	66-70	8/20/2002	ND	ND	ND	ND	ND	ND	ND	120	120
MW-6	70-75	8/18/2002	ND	24,000	48,000	296,000	368,000	ND	1,800	3,120	5,020
MW-7	46-48	8/18/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-8	60-65	10/2/2002	ND	ND	270	1,740	2,010	ND	ND	340	876
MW-9	84	10/1/2002	5,100	20,000	25,000	174,000	224,100	ND	980	2,190	4,545
MW-10	69	9/30/2002	ND	1,800	4,800	29,000	35,700	ND	120	480	992
MW-11	60-65	10/2/2002	830	3,600	10,000	71,000	85,630	ND	1,300	3,100	8,441
MW-12	28	10/3/2002	ND	8,300	6,200	38,000	52,500	ND	1,000	3,600	8,917

NOTE: All units are ug/kg.

ND = not detected

NS= not sampled

TABLE 2
ANALYTICAL RESULTS
FOR SOIL BORINGS

ST Services
Barnes Ferry Road - Area 1, Macon, GA

LOCATION	DEPTH (ft bls)	DATE SAMPLED	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES	TOTAL BTEX	MTBE	NAPHTHALENE	METHYL NAPHTHALENE	Total PAH (EPA Method 8260)	TPH
B-1	5	4/25/2002	ND	24	18	78	121	ND	ND	ND	ND	—
	8	4/25/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	—
	20	5/7/2002	ND	20	ND	30	50	ND	18	ND	18	66
B-2	9	5/7/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	120
	20	5/7/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	11
B-4	5	4/25/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	—
B-16	16	5/8/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	6
B-18	10	5/8/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	13
B-23	10	4/25/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	12
	18	5/8/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	12
B-24	27	5/8/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	640
B-26	25	5/8/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	43
	48	5/8/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	17
B-29	5	5/8/2002	ND	12	9	33	54	ND	ND	ND	ND	214
	13	5/8/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	6

NOTE: All units are ug/kg. ND = not detected NS = not sampled

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
FOR MONITORING WELLS

ST Services
Barnes Ferry Road - Area 1, Macon, GA

MONITOR WELL	DATE SAMPLED	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES	TOTAL BTEX	MTBE	NAPHTHALENE	METHYL NAPHTHALENE	Total PAH (EPA Method 810)	TOTAL LEAD
B-1	5/7/2002	350	1,460	2,140	16,770	20,720	114	42	ND	42	211
MW-1	11/12/2002	560	150	270	2,120	3,100	ND	14	6.5	23	ND
MW-2	11/12/2002	120	30	55	780	985	ND	8.4	4.2	13	19
MW-3	11/6/2002	Product	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	11/6/2002	Product	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	11/6/2002	380	24	110	470	984	ND	ND	ND	ND	ND
MW-6	11/6/2002	Product	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-7	11/6/2002	ND	ND	ND	2	2	ND	ND	ND	ND	ND
MW-8	11/6/2002	1,200	70	370	2,690	4,330	ND	30	ND	30	ND
MW-9	11/7/2002	2,100	240	370	2,510	5,220	ND	35	ND	35	ND
MW-10	11/6/2002	560	130	210	1,520	2,420	ND	21	27	48	ND
MW-11	11/6/2002	Product	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-12	11/7/2002	3,400	1,000	530	3,500	8,430	ND	63	25	88	ND

NOTE: All units are ug/L. ND = not detected NS = not sampled

TABLE 4
GROUNDWATER ANALYTICAL RESULTS
FOR PRIVATE WELLS

ST Services
Barnes Ferry Road - Area 1, Macon, GA

MONITOR WELL	DATE SAMPLED	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES	TOTAL BTEX	MTBE	NAPHTHALENE	METHYL NAPHTHALENE	Total PAH (EPA Method 610)	TOTAL LEAD
PW-1	11/12/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PW-2	10/3/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PW-3	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PW-4	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PW-5	10/3/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PW-6	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PW-7	11/12/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PW-8	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PW-9	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PW-10	—	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
PW-11	11/12/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	11
PW-12	11/12/2002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

NOTE: All units are ug/L. ND = not detected NS = not sampled

Memorandum



 A KANEB COMPANY

TO: Greg Fata, Esquire
CC: Fred Johnson
Jim Tidmore
RE: Macon, GA – Barnes Ferry Road
DATE: February 6, 2003

BACKGROUND

ST Services operates a DOT regulated pipeline originating at the Macon, GA terminal and supplying military jet fuel to Warner Robbins AFB. The pipeline is approximately 11 miles long and is constructed within a right of way (ROW) traversing or adjacent to private properties, public rights of way, railroad rights of way and DOD property. The pipeline was constructed in 1964 and 1965.

Between 1961 and 1994 the pipeline only transported JP- 4 military specification jet fuel. Since 1994 the pipeline has transported only JP-8 military specification jet fuel. These two products are very distinct and are easily differentiated.

Kaneb Pipeline Company purchased the companies trading as ST Services from Grace Energy in 1993 in a cash for stock transaction. Kaneb assumed certain scheduled environmental liabilities. In February 1998 Kaneb provided notice to Grace of potential liabilities that were discovered after the 1993 acquisition but are believed to have occurred during Grace's ownership of the ST. Potential soil and groundwater contamination along the Macon – Warner Robbins pipeline right of way was included in the notice.

SITE HISTORY

The Site consists of three Areas of Concern along an approximately 5,000-foot section of the pipeline right of way adjacent to Barnes Ferry Road and Feagin Road. Although there are limited records, residence recall releases within this section of the right of way occurring in the mid 1980's. Three private supply wells were replaced due to contamination between 1981 and 1984. The Georgia Department of Natural Resources (DNR), through the Georgia Geological Survey, conducted a

From the desk of...

James A. Siciliano
Vice President
ST Services
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ST

preliminary assessment of the area based on information they discovered during a file review.

As a result of the findings of this assessment and file review the GA DNR issued a Notice of Violation to ST Services in December 2001 ordering ST Services to characterize the extent of contamination in the three identified Areas of Concern, provide alternate drinking water supply for any residences impacted by the contamination and perform required corrective action to remediate the site. ST has completed the initial phase of assessment.

AREA NO. 1

Located within the Barnes Ferry Road subdivision, this area currently appears to have the most significant liability. There are currently 13 occupied residential properties in the study area. Nine of the residences are utilizing private wells for drinking water. The other 4 residences are connected to the public water supply.

Clayton Group Services, working for GA DNR, identified that two residents in the subdivision, Mrs. Pearson and Mr. Hammond, had private supply wells replaced in 1984 as a result of jet fuel contamination. W. R. Grace (ST Services) paid for Mr. Hammond's well replacement, but not for Mrs. Pearson's.

The initial assessment of Area 1 has partially delineated a large free product plume. The extent of groundwater contamination in excess of acceptable levels has not yet been defined. The GA DNR has requested additional assessment and interim remedial action to begin removal of the free product. This area will require significant additional assessment work during 2003 and an aggressive implementation of interim remedial activities to keep the GA DNR satisfied.

AREA NO. 2

Soil contamination was discovered along Barnes Ferry Road in 1998 during the installation of a municipal water supply line. Based on this information, GA DNR required ST to investigate this area. Preliminary assessment has not found soil contamination or free product in the area but; groundwater contamination was found and will require additional assessment and monitoring.

AREA NO. 3

ST Services reimbursed Mrs. McClendon for the replacement of her private water supply well in 1981. The settlement was the result of a lawsuit filed by Mrs. McClendon in 1982. ST identified and repaired a leak in the pipeline adjacent to Mrs. McClendon's property. Three soil borings were completed in 1982 and

ST

showed some soil contamination. However, no additional work was done after the replacement of the supply well.

Based on this information, GA DNR required ST to investigate this area. Preliminary assessment has not found soil contamination or free product in the area but; groundwater contamination has been found and will require additional assessment and monitoring.

POTENTIAL COST ESTIMATES

ST Services has spent approximately \$ 234,000 to date on the preliminary assessment of these areas. Dylan Morgan has developed an estimate of the potential worst-case remedial costs based on the current known conditions and assumed worst-case conditions, at the site. He has assumed that Areas 2 and 3 will require additional assessment and monitoring only. If additional assessment does not support a monitoring only recommendation the future costs will increase.

Area 1 has the greatest potential liability. The current assessment has identified 2 acres impacted with free product and another 14 acres impacted with dissolved contamination above action levels. In developing the potential costs we have assumed that the impacted area will ultimately be found to be four times the size of the currently known area.

The estimate prepared by Dylan places the total worst-case cost for this problem at \$6,250,258. This includes the money spent to date, budgeted expenditures for additional assessment and our estimate of worst-case future remediation cost. The attached spreadsheet provides details of the estimate. The estimate does not provide for any third party liability or property damage claims.

Attachments (3):

- Worst Case Estimate
- Inventory of Supporting Documentation
- AFE Cost Report for Project Inception to Date
- Clayton Group Services Report – Barnes Ferry Road
- Site Investigation Report – Area 2
- Site Investigation Report – Area 3
- ST Macon – Barnes Ferry Rd. Subdivision Release
- Notice of Violation – Barnes Ferry Rd.
- Correspondence on Claim No. 23-244717K2
- Site Investigation Work Plan – Area 1
- Site Investigation Work Plan – Area 2
- Site Investigation Work Plan – Area 3
- Cody Ehlers Group Budget Estimates

ST MACON - PIPELINE RELEASE BARNES FERRY ROAD
Estimate of Total Project Costs

Costs to Date Nov 2001 - Dec 2002	GW and Soil Assessment, Analytical and Reporting	\$ 234,008.00
Estimated Costs 2003*	Area 1	
*CEG Estimate to JAS 11-21-02	Barnes Ferry Road - Pearson Well	
	MW Installation, Soil Geoprobe Assessment South	
	Remediation Pumps and design of product recovery	
	PW Sampling, Access Agreements	
	Product System Install and O + M	
	Waste Disposal - D001	\$ 189,250.00
	Area 2	
	Installation and sampling 3 MWs	
	Reporting, Analytical Costs	\$ 108,000.00
	Remedial Design	
	Area 3	
	Feagin Road - McClendon Property	
	Monitor Well Installation, Sampling	
	Remedial Design	\$ 78,000.00
	Connection of 8 private well owners to City Water \$4,000 / residence	\$ 32,000.00
	Purchase 2 0.5 acre parcels for \$5000 / lot	\$ 10,000.00

Approximately 25% of Area 1 Assessed - Known Product Plume 2 Acres -
Dissolved Plume to monitor 14 Acres

WORST CASE SCENARIO

ASSUMPTION: Product Plume 8 acres and dissolved plume is 56 Acres

Assessment and Remediation System Cost Estimates

Complete GW and Soil Assessment in 2004		
Additional Installation 44 MWs to 70 ft	44 MWs x \$5,000 / MWs	\$ 220,000.00
Geoprobe Soil delineation - Geologist and Rig	\$3500/ day 30 days	\$ 105,000.00
Analytical Costs, GW Soil and PW Sampling		\$ 100,000.00
Surveying, CADD work, Reporting, Regulatory Negotiations		\$ 300,000.00
Waste Disposal 500 gall./month D001 @ \$1/gall disposal		
6,000 gall / yr x 20 years x \$1 / gall		\$ 120,000.00
Remed Sys Construction	Installation of GW Product Recovery Limited Pump and Treat	
	5 - 10 Recovery Wells, Bio or OH injection system	\$ 2,000,000.00
Long Term O + M	20 years @ \$100,000 / year	\$ 2,000,000.00
	Reporting, Analytical and Regulatory Correspondence	
Risk Assessment for Perimeter Dissolved Plume		\$ 80,000.00
County Water supplied to Private Well Owners \$20 / month / residence x 20 residences x 50 years		\$ 20,000.00
Quarterly sampling of 5 residences PWs for 50 years - 5 Residences x 4 Qs x \$150 x 50 years		\$ 150,000.00
Area 2 - 2004 - 2014	Installation of 3 additional MWs @ \$4,000 / MW	\$ 12,000.00
	MOP Reporting and approval	\$ 40,000.00
	Reporting, Sampling and Monitoring 6 MWs Quarterly	
	\$5,000 / Quarter x 10 years (40 Quarters)	\$200,000.00
Area 3 - 2004 - 2014	Installation of 3 additional MWs @ \$4,000 / MW	\$ 12,000.00
	MOP Reporting and approval	\$ 40,000.00
	Reporting, Sampling and Monitoring 6 MWs Quarterly	
	\$5,000 / Quarter x 10 years (40 Quarters)	\$200,000.00
TOTAL PROJECT ESTIMATE		\$ 6,250,258.00

Cody Ehlers Group

1510 Rowe Lane
 DeLand, FL 32720
 Phone: (904) 738-1897
 Fax: (904) 738-4800
 email: ceg@totcon.com

November 21, 2002

ST Services
 7304 Preston Road
 Dallas, TX 75252

Attention: Mr. Jim Siciliano

Subject: Budget Estimates - Environmental Projects - 2003

Dear Mr. Siciliano:

The following are basic descriptions of work to be performed in 2003 and estimated cost associated:

Facility	Project Description	Estimated Cost
Jacksonville		
All Facilities	Leak Detection Supervision	\$ 3,500
	Annual Monitor Well Sampling	33,750
Main Terminal	Soil Remediation	110,000
	Well Abandonment	15,000
Annex I	Pentene Rack Inv. Final Report	1,200
Annex II	Product Recovery oversight	5,500
Macon		
Tank 3003	Soil Excavation	57,181*
Area 1	Continued Investigation	65,500
	Remedial design	25,000
	Product System Installation (initial)	85,000
	System O&M	8,750
	Waste Disposal	5,000
Area 2	Continued Groundwater Investigation	78,000
	Remedial design - MOP	30,000
Area 3	Continued Groundwater Investigation	48,000
	Remedial design - MOP	30,000

*May be accomplished in 2002

Page 2
November 21, 2002
Jim Siciliano

Thank you for the opportunity to work with you on these projects.
Sincerely,

Cody Ehlers Group

Adrian W. Kent, P.G.
Project Director

Cc: Dylan Morgan

Title/Subject	From	Company	To	Company	Date
Site Activities Update for ST Services, Area 1, 2, and 3	Adrian Kent	Cody Ehlers Group	Jim Guentert	Georgia Geological Society	11-Oct-02
Site Activities Update for ST Services, Area 1, 2, and 3	Adrian Kent	Cody Ehlers Group	Jim Guentert	Georgia Geological Society	30-Aug-02
Site Activities Update for ST Services, Area 1, 2, and 3	Adrian Kent	Cody Ehlers Group	Jim Guentert	Georgia Geological Society	30-Jan-02
Release of JP-8 from Tank 3003	B. Roger Carter	Georgia Department of Natural Resources	Dylan Morgan	ST Services	18-Aug-02
JP-8 Release at Tank 3003	Adrian Kent	Cody Ehlers Group	Jim Guentert	Georgia Geological Society	5-Aug-02
List Property Owners at Barnes Ferry Project					
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Little Gray		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Woody Gray		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	/			23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Viola Johnson		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Henry Hubbard		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Addie Castellow		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Roy Conaway		23-Apr-02

Title/Subject	From	Company	To	Company	Date
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Willett Thomas		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Roy Conaway		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Marjorie Mosely		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Rosa Lee Grayer		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Russell Grayer		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	E. Hubbard		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Mary Bryant		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Wilhelmina Pearson		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Charlie Daniels		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Robert Bentley		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Willie Kendrick		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GEPD)	Jim Tidmore	ST Services	Denise Williams		23-Apr-02

Title/Subject	From	Company	To	Company	Date
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GED)	Jim Tidmore	ST Services	Willie Taylor		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GED)	Jim Tidmore	ST Services	Willie Kendrick		23-Apr-02
Notification Letter to Land Owners of investigation of groundwater by the Georgia Environment Protection Division (GED)	Jim Tidmore	ST Services	Lawrence Mims		23-Apr-02
Site Investigation Work Plan, ST Services, Area 2 - letter	B. Roger Carter	Georgia Department of Natural Resources	Dylan Morgan	ST Services	15-Mar-02
Site Investigation Work Plan, ST Services, Area 3 - letter	B. Roger Carter	Georgia Department of Natural Resources	Dylan Morgan	ST Services	15-Mar-02
Site Investigation Work Plan, ST Services, Area 1 - letter	B. Roger Carter	Georgia Department of Natural Resources	Dylan Morgan	ST Services	8-Feb-02
Site Investigation Work Plan, ST Services, Area 2		Cody Ehlers Group		ST Services	Feb 2002
Site Investigation Work Plan, ST Services, Area 1		Cody Ehlers Group		ST Services	Jan 2002
Source Identification-Contamination Assessment Report (SICAR)		Clayton Group Services		ST Services	9-Nov-01
Maps of Macon Site		Clayton Group Services		ST Services	10-Oct-01
Site Investigation Report Area 2		Cody Ehlers Group		ST Services	Nov 2002
Site Investigation Report Area 3		Cody Ehlers Group		ST Services	Nov 2002
Site Investigation Work Plan		Cody Ehlers Group		ST Services	Feb 2002

Title/Subject	From	Company	To	Company	Date
ST Services suspected P/L Release	Jim Siciliano	ST Services	William McEmore	Georgia Geological Survey	20-Jan-87
ST Services suspected P/L Release	Jim Siciliano	ST Services	William McEmore	Georgia Geological Survey	3-Oct-86
Correspondence on issues concerning the Norfolk southern pipeline	Larry Ellis	ST Services	Ron Scoggins	ST Services	14-Sep-86
Answers to Interrogatories	Robert Gunn	Martin, Snow, Grant & Napier	Melvin James	ST Services	21-Oct-82
Correspondence on claim no. 23-244717K2	Robert Gunn	Martin, Snow, Grant & Napier	Phil Cowan	CNA/Insurance	10-Aug-82
Correspondence on claim no. 23-244717K2	Robert Gunn	Martin, Snow, Grant & Napier	Phil Cowan	CNA/Insurance	11-Aug-82
Correspondence on claim no. 23-244717K2	Robert Gunn	Martin, Snow, Grant & Napier	Phil Cowan	CNA/Insurance	9-Aug-82
Plaintiff's first interrogatories	Robert Gunn	Martin, Snow, Grant & Napier	Melvin James	ST Services	30-Jul-82
Voluntary dismissal	Robert Gunn	Martin, Snow, Grant & Napier	Phil Cowan	CNA/Insurance Preston Testing and	12-Jul-82

Title/Subject	From	Company	To	Company	Date
ST Services suspected P/L Release	Jim Siciliano	ST Services	William McLemore	Georgia Geological Survey	20-Jan-87
ST Services suspected P/L Release	Jim Siciliano	ST Services	William McLemore	Georgia Geological Survey	3-Oct-86
Correspondence on issues concerning the Norfolk southern pipeline	Larry Ellis	ST Services	Ron Scoggins	ST Services	14-Sep-86
Answers to Interrogatories	Robert Gunn	Martin, Snow, Grant & Napier	Melvin James	ST Services	21-Oct-82
Correspondence on claim no. 23-244717K2	Robert Gunn	Martin, Snow, Grant & Napier	Phil Cowan	CNA Insurance	10-Aug-82
Correspondence on claim no. 23-244717K2	Robert Gunn	Martin, Snow, Grant & Napier	Phil Cowan	CNA Insurance	11-Aug-82
Correspondence on claim no. 23-244717K2	Robert Gunn	Martin, Snow, Grant & Napier	Phil Cowan	CNA Insurance	9-Aug-82
Plaintiff's first interrogatories	Robert Gunn	Martin, Snow, Grant & Napier	Melvin James	ST Services	30-Jul-82
Voluntary dismissal	Robert Gunn	Martin, Snow, Grant & Napier	Phil Cowan	CNA Insurance	12-Jul-82
Chemical Report	Thomas Lantz	Law and Co.		Preston Testing and Engineering Company	9-Dec-81
Chemical Report	Thomas Lantz	Law and Co.		Preston Testing and Engineering Company	9-Apr-82
Article in the Macon Telegraph					16-Nov-81
Service of Process transmittal form					19-May-82
Magnolia McClendon vs. grace petroleum corp. - complaint - Civil Action No. 26390			Kevin O'Reilly	Grace and Co.	13-May-82
Investigation of water well contamination complaint from Mrs. McClendon	Willie McClendon				5-Oct-81
Complaint of water well contamination from Mrs. McClendon	Melvin James	ST Services	Dale Wells	ST Services	2-Oct-81
Invoice for Chemical Analysis		ST Services	Dale Wells	ST Services	25-Sep-81
Lab Report No. 10299	Jessa L. Smith	Southeast Laboratories, Inc.		Allen C. Loyd, Inc.	25-Sep-81
Report of Analysis	Thomas Lantz	Southeast Laboratories, Inc.	Sonny Sharpe	Allen C. Loyd, Inc.	27-Aug-81
Chemical Analysis of well water		Law and Co.	Magnolia McClendon		25-Sep-81
Site Test - Boring No. B1		Southeast Laboratories, Inc.		Allen C. Loyd, Inc.	27-Oct-81
Site Test - Boring No. B2		Preston Testing and Engineering Co	Mrs. McClendon, Tribble and Richardson		29-Oct-01

Title/Subject	From	Company	To	Company	Date
Site Test - Boring No. B3		Preston Testing and Engineering Co	Mrs. McClendon, Tribble and Richardson		10-Feb-82
Site Test - Boring No. B4		Preston Testing and Engineering Co	Mrs. McClendon, Tribble and Richardson		8-Feb-82
Site Test - Boring No. B5		Preston Testing and Engineering Co	Mrs. McClendon, Tribble and Richardson		5-Feb-82
Definition of Terms					
Soil Fractions					
Monitoring wells near gas line				Preston Testing and Engineering Company	11-Nov-81
List of old Lawsuits					
Correspondence on Barnes Ferry Road Pipeline	Dylan Morgan	ST Services	Jim Guentert	Georgia Department of Natural Resources	9-Nov-01
Correspondence on Barnes Ferry Road Pipeline	Dylan Morgan	ST Services	Jim Guentert	Georgia Department of Natural Resources	8-Nov-01
Correspondence on Barnes Ferry Road Pipeline	Jim Sciliano	ST Services	Roger Carter	Georgia Geological Survey	12-Nov-88
4" JP-4 Pipeline Drawing	Eddie Nobles	ST Services	Jim Sciliano	ST Services	9-Nov-88
Macon Pipeline - Route Map	Jim Sciliano	ST Services	William McLemore	Georgia Geological Survey	30-Jan-88
ST Service suspected P/L Release	Jim Sciliano	ST Services	William McLemore	Georgia Geological Survey	3-Oct-88
ST Services Pipeline Release	William McLemore	Georgia Geological Survey	Don Hahn	ST Services	28-Jun-88
Source Identification Report/Contaminant Assessment Report (SICAR)		Clayton Group Services, Inc.		Georgia Environmental Protection Division UST Management Program	26-Oct-01
Notice of Violation - Discharge of Petroleum Hydrocarbons to Ground Water	B. Roger Carter	Georgia Department of Natural Resources	Dylan Morgan	ST Services	20-Dec-01
Notice of Violation - ST Services Pipeline, Macon, GA	B. Roger Carter	Georgia Department of Natural Resources	Dylan Morgan	ST Services	20-Dec-01
Memo on ST Macon - Barnes Ferry Road Subdivision Release	Dylan Morgan	ST Services	Jim Sciliano, Jim Tidmore	ST Services	14-Dec-01

CC	TRANS	VENDOR	SC	TRANSACTION	AMOUNT	Acct No.
NUMBER	DATE	NUMBER	VENDOR NAME	TRANSACTION COMMENT		
DB: ENV ACCRUAL/REMED P/L RELEASE						
99000	00 06/14/99	1108200	VERSAR INC.	AP 3001108200317144	10,279.09	406010000
99000	00 07/29/99	1108200	VERSAR INC.	AP 3001108200317136	15,558.09	406010000
99000	00 08/23/99	1108200	VERSAR INC.	AP 3001108200317135	12,068.86	406010000
99000	00 11/12/01	1100700	CODY EHLERS GROUP IN	AP 30011007001873	1,265.55	406010000
99000	00 07/05/02	2201300	ENVIRONMENTAL CONS L	AP 300220130024771	680.00	406010000
99000	00 07/05/02	2202040	GEO LAB PROBING SVS	AP 30022020403933	6,095.04	406010000
99000	00 07/05/02	2202040	GEO LAB PROBING SVS	AP 30022020403946	6,482.09	406010000
99000	00 07/15/02	2201300	ENVIRONMENTAL CONS L	AP 300220130024974	340.00	406010000
99000	00 07/15/02	2202040	GEO LAB PROBING SVS	AP 30022020403976	1,059.44	406010000
99000	00 07/15/02	4200785	BOTTORF ASSOCIATES I	AP 300420078510603	1,190.00	406010000
99000	00 07/19/02	2200960	CODY EHLERS GROUP IN	AP 30022009602563	1,980.00	406010000
99000	00 07/19/02	2200960	CODY EHLERS GROUP IN	AP 30022009602565	990.00	406010000
99000	00 07/19/02	2201300	ENVIRONMENTAL CONS L	AP 300220130025332	50.00	406010000
99000	00 07/30/02	2200470	BOTTORF ASSOCIATES I	AP 300220047010612	2,450.00	406010000
99000	00 07/30/02	2200960	CODY EHLERS GROUP IN	AP 30022009602533	2,450.00	406010000
99000	00 08/20/02	2200960	CODY EHLERS GROUP IN	AP 30022009602630	3,510.00	406010000
99000	00 08/20/02	2200960	CODY EHLERS GROUP IN	AP 30022009602631	14,225.34	406010000
99000	00 08/20/02	2201300	ENVIRONMENTAL CONS L	AP 300220130025966	100.00	406010000
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SUB TOTAL:					276,668.04	

FE	CC TRANS	VENDOR	SC	TRANSACTION		
UMBER	DATE	NUMBER	VENDOR NAME	TRANSACTION COMMENT	AMOUNT	Acct No.

OB: ENV ACCRUAL/REMED P/L RELEASE

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B99000 TOTAL:	276,668.04
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REPORT TOTAL:	276,668.04
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TRANS DATE	VENDOR NUMBER	VENDOR NAME	SC	TRANSACTION COMMENT	TRANSACTION AMOUNT	Acct No.
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JOB SITE ASSESS-BARNES FERRY RD

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00 TOTAL: 103,971.71

SUB TOTAL: 103,971.71

E02008 TOTAL: 103,971.71

REPORT TOTAL: 103,971.71

Transfer to

TFR to B99000

Georgia Department of Natural Resources

205 Butler Street, S.E., East Floyd Tower, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Harold F. Reheis, Director

Environmental Protection Division

(404) 656-4713

Reply To:

Georgia Geologic Survey

Room 400

19 Martin Luther King Jr. Drive, S.W.

(404) 656-3214

RECEIVED
ST SERVICES

NOV 26 2001

JACKSONVILLE, FLORIDA

November 16, 2001

extra copy

Dylan Morgan

ST Services

6531 Evergreen Avenue

Jacksonville, Florida 32208

Subject: October 26, 2001- Clayton Group Services Report for Barnes Ferry Road
Project, Macon, Bibb County, Georgia

Dear Mr. Morgan:

Enclosed is a copy I made from the report I obtained from the UST Program. Let me know if the copied figures are insufficient, the original had colored figures.

Sincerely,



James S. Guentert
Advanced Geologist

cc: File



RECEIVED
ST SERVICES

NOV 26 2001

JACKSONVILLE, FLORIDA

**SOURCE IDENTIFICATION REPORT/
CONTAMINANT ASSESSMENT REPORT (SICAR)**

**Barnes Ferry Road Project
6662 Grayer Drive
Macon, Bibb County, Georgia 31216
Facility I.D.: 9011078**

Prepared for:
Georgia Environmental Protection Division
UST Management Program

Prepared by:
Clayton Group Services, Inc.
3380 Chastain Meadows Parkway
Suite 300
Kennesaw, Georgia 30144

October 26, 2001



**SOURCE IDENTIFICATION REPORT/
CONTAMINANT ASSESSMENT REPORT
(SICAR)**

-2

OCT 30

Route 77

500

SOURCE IDENTIFICATION REPORT/CONTAMINANT ASSESSMENT REPORT

Facility Name: Barnes Ferry Road Project Street Address: 6662 Grayer Road

Facility ID: 9011078 City: Macon County: Bibb Zip Code: 31216

Latitude: 32.7313 Longitude: 83.6443

Submitted to

Name: Rusty Kestle

Company: Georgia EPD

Address: 4442 International Parkway

Suite 104

City: Atlanta State: GA

Zip Code: _____

Telephone: (404) 362-2687

Prepared by Consultant/Contractor:

Name: Jennifer L. Titcomb

Company: Clayton Group Services, Inc.

Address: P.O. Box 30216

City: Savannah State: GA

Zip Code: 31410

Telephone: (912) 898-5090

I. PLAN CERTIFICATION:

A. Registered Professional Engineer or Professional Geologist Certification

I hereby certify that I have directed and supervised the field work and preparation of this plan, in accordance with State Rules and Regulations. As a registered professional geologist and/or professional engineer, I certify that I am a qualified groundwater professional, as defined by the Georgia State Board of Professional Geologists. All of the information and laboratory data in this plan and in all of the attachments are true, accurate, complete, and in accordance with applicable State Rules and Regulations.

Name: Earl F. Titcomb, Jr., P.G.

Signature: *Earl F. Titcomb, Jr.*

Date: 26 Oct 01



(Tables Tab: All Report Tables)

(Figures Tab: All Report Figures)

II. INITIAL RESPONSE REPORT

A. Initial Abatement

Based on historical data obtained during this investigation (see Section C. *Site History*), two private wells in the area became contaminated with petroleum hydrocarbons prior to 1984. Mr. Horace McSwain, an attorney for two well owners, filed suit against the nearby pipeline's owner, ST Services, Inc., a subsidiary of W.R. Grace Co., in 1984. ST Services paid for a replacement well for Mr. Hammond. Other area residents had their wells replaced around the same time. Several residents recalled the release and observed free product at various points in the ditch which parallels Barnes Ferry Road and the pipeline. Mr. Hammond observed highly contaminated soil being removed at the pipeline, across the street from his house on Barnes Ferry Road.

Mr. Dylan Morgan, Environmental Manager, ST Services, and Mr. Eddie Nobles, Terminal Manager, ST Services, Inc., do not recall any releases from the pipeline along Barnes Ferry Road and no information concerning a release or initial abatement was provided to Clayton by ST Services during this investigation. No groundwater remediation was reported by those individuals interviewed for this investigation and no evidence of prior remedial groundwater activities or investigation was noted during our site visits.

B. Free Product Removal

(Table 1: Summary of Free Product Removal)

No free product has been reported nor was any encountered during this investigation in the private water supply wells sampled. However, one of the four monitoring wells installed by Clayton for this investigation, MW-3 (located nearest the pipeline), measured 12 inches of product 24 hours after installation. Product thickness at this well varied over the next two days from 7 ¾ inch to 12 inches. in thickness due to agitation of the well during development. Approximately one gallon of product was manually bailed from the well on October 10, 2001, and containerized for offsite disposal.

No additional free product removal has been conducted. Since the exact location of the pipeline leak is unknown, date of release(s) is unknown, plume limits have not been delineated, and data indicates a widespread plume, it does not appear that removing free product from MW-3, located on an undeveloped lot, will impact the source(s).

C. Site History

(Figure 1: Site Vicinity Map)

(Figure 2: Site Plan)

The area impacted by the release(s) consists of residential property located on Grayer Drive, Smithfield Road, and Barnes Ferry Road. This area is historically rural/agricultural. Residential development occurred in the 1960's, as evidenced by an aerial photograph review and interviews

conducted with residents and the current pipeline owner, ST Services. The pipeline was installed along Barnes Ferry Road in 1963, according to Mr. Eddie Nobles, ST Services.

1. Aerial Photograph Review

(aerial photographs were obtained from the Macon-Bibb County Tax Assessors Office)

1950 (Scale: 1" = 400')

The site consists of a wooded area, a few unimproved roads, and some agricultural fields. Barnes Ferry Road and railroad tracks west and north of the site are present. In general, adjacent properties are rural/agricultural. Adjacent properties south of the site and south of Barnes Ferry Road consist of an agricultural field and one residence located along Barnes Ferry Road (directly south of the present entrance to Grayer Drive).

1964 (Scale: 1" = 400')

Residential development has taken place at the site. Most of the current houses on Grayer Drive, Smithfield Road, and Barnes Ferry Road, have been constructed in this photograph. Adjacent properties consist of agricultural fields, undeveloped property, and/or residences.

1980 (Scale: 1" = 400')

Site is developed with current residences. The house located across Barnes Ferry Road, as shown in the previous two photographs, is no longer present. Adjacent properties are either undeveloped, or rural/agricultural.

1999 (Scale: 1" = 1000')

Site appears as it is presently developed. Adjacent properties consist of undeveloped/heavily wooded land and one large agricultural field northeast of the site. Southwest of the site and the railroad tracks is Keenan Transport, developed circa 1990. This property operates aboveground storage tanks and has no underground storage tanks, according to employees.

2. Regulatory Review

(Appendix A: EPD letter, June 14, 1996)

The Georgia EPD provided Clayton with a letter from Lisa Lewis, Georgia EPD/USTMP, to Roger Carter, Georgia Geologic Survey, dated June 14, 1996, summarizing the site history as follows:

- The site was inspected by EPD personnel on April 24, 1996, in response to reported petroleum contamination of the former water supply well owned by Mrs. Pearson. Her well was replaced several years ago as a result of the contamination. EPD sampled the replacement well and analytical results did not find contamination.

According to other residents, several other nearby residential wells across from the pipeline were impacted and replaced by the pipeline company, ST Services, Inc.

- Mrs. Parks, a resident of the area, stated that her husband has assisted in the repair of the pipeline across the road from her house and that her well was replaced by ST Services after becoming contaminated with petroleum. The contaminated water supply wells indicate the plume may extend several hundred feet from the pipeline.
- ST Services, Inc., provides petroleum for Warner AFB (Robbins) and were unaware that Mrs. Pearson's well had been impacted in the past. They did acknowledge that several releases had occurred in the past which necessitated the replacement of some private water supply wells, but that current operating practices had reduced the number of releases.
- No UST sites were noted within a half-mile radius of the impacted wells and it appears the source of the drinking water well impact is the ST Services pipeline.

Clayton conducted an onsite regulatory file review at the Georgia USTMP office in Atlanta, Georgia, for this investigation. No releases were found in a physical file review for the Barnes Ferry Road/Grayer Drive/Smithfield Road area. In addition, Mr. Jim Guentert, Georgia Geological Survey, indicated they did not maintain a file pertinent to this release.

3. Database Search

(Appendix B: Vista Site Assessment Report, October 2001)

Clayton contacted Vista Information Sources, Inc., to provide a regulatory database search. All databases were searched for a one mile radius of the site area. No regulated facilities were located within a ½ mile radius of the site. Several regulated facilities, including a ST Services tank farm, are located along Hawkinsville Road, approximately ½ to one mile west, southwest, and northwest, of the site (Vista 2001). These facilities are unlikely to be a potential source of contamination for the subject site due to their distance from the site.

4. Onsite Interviews

(Appendix C, Records of Communication)

Clayton conducted onsite interviews with area residents during the investigation (September 21 through October 10, 2001). Clayton told area residents that we were investigating the contamination at Mrs. Pearson's well. Some residents expressed direct knowledge of a pipeline release (Mr. Conaway, Mr. Hammond, and Mrs. Sadie Grayer); however, residents were unable to document dates and times for events associated with the release. Other residents were aware of the problems with the wells, but were unsure of the origin of the contamination. Three residents indicated they had replacement wells installed in the mid to late 1980's after their original wells were impacted by petroleum from a release. Five of the twelve occupied area residences utilize city water for drinking water.

5. Additional Interviews
(Appendix C, *Records of Communication*)

ST Services, Inc.

Two employees of ST Services were contacted via telephone by Clayton during this investigation. Mr. Dylan Morgan, Environmental Manager, Jacksonville, Florida, expressed no knowledge of pipeline releases, past or present, near the subject area and was unaware of the replacement wells installed by ST Services in the mid to late 1980's. Mr. Morgan indicated that the pipeline had recently been tested for leaks and none were found. Mr. Eddie Nobles, Terminal Manager, Macon, Georgia, also expressed no knowledge of past pipeline releases in the subject area and was unable to find any records of a release. Mr. Nobles has been employed by ST Services since 1983. Mr. Morgan and Mr. Nobles indicated the pipeline was installed in 1963 and is dedicated to jet fuel. Currently, the pipeline carries JP#8 (since 1994). Prior to this time, the pipeline carried JP#4.

Replacement Well Driller

Mr. Jack Elliot, well driller and resident of the South Macon area, was contacted via telephone concerning the replacement wells drilled at the site. Mr. Elliot indicated he was very familiar with the pipeline leaks along Barnes Ferry Road and had installed grounding rods for the pipeline in the past. He recalled observing free product in the ditch parallel to Barnes Ferry Road at the east end. He stated that he drilled Mr. Hammond's and Mrs. Pearson's replacement wells. He was aware that the upper water table was contaminated with petroleum and sealed his well screens by grouting with cement or bentonite grout to prevent a downward migration of contaminated groundwater into the screened interval.

Mr. Horace McSwain, III, Esq.

Mr. McSwain, an attorney for Mrs. Pearson and Mr. Hammond, was contacted via telephone by Clayton. Mr. McSwain indicated that he filed suit in 1984 against ST Services, Inc., a subsidiary of W.R. Grace Company, for the contamination of Mrs. Pearson and Mr. Hammond's water wells. Preston Engineering conducted an environmental investigation and found that the pipeline located opposite the street from his property was leaking. He was unable to get a decision for Mrs. Pearson; however, the pipeline company paid for Mr. Hammond's replacement well.

Mr. McSwain indicated that he represented another resident in an area north of the subject site. The same pipeline runs through this area. During this case, Mell James, a ST Services's Manager, identified all known leaks on a map of the pipeline route; however, Mr. McSwain could not recall all of them. He did recall one leak near the Barnes Ferry railroad crossing (approximately 500 feet west of the nearest residence found to be impacted in this investigation).

Mr. McSwain stated that he reported the leak to the Georgia EPD in 1984; however, they did not believe the source was the pipeline and did not require investigation. Mr. McSwain was willing to allow Clayton to conduct an onsite review of his files in his Macon office.

Macon-Bibb County Health Department

(Appendix D: Macon Bibb-County Health Department Records)

Mr. Jim Taylor, Environmental Health County Manager, Environmental Health Division, was contacted several times via telephone by Clayton concerning the contaminated residential wells. Mr. Taylor was aware of the issues with petroleum contaminated well water. Mr. Taylor recalled sampling Mrs. Pearson's old well in 1988 and provided Clayton with his records (well inspection records, sampling and analytical data). Benzene was detected at 134 ug/l in the well. It was not in use at the time and Mr. Taylor recommended during the inspection that it be abandoned.

Mr. Taylor also provided Clayton with a list of permitted wells in the area as well as county property owner records (legal descriptions, addresses, etc.) which were used in constructing Tables 2 and 3. Taylor provided information on permitted wells and public water wells in the area, as well as county property owner information such as legal descriptions, addresses, etc.

3. Local Water Resources

(Figure 1: Site Vicinity/Quadrangle Map)

(Figure 2: Site Plan)

Mr. Jim Taylor provided information on public and private drinking water supplies in the vicinity of the site. Each residence has a well, although not all wells are permitted with the health department. City water is available to the site and five of the 12 residences in the area of concern utilize city water. Based on the site visit, the out of use wells are either inoperable (i.e., broken pump or no pump) or used only for irrigation. During the site visit, it did not appear that any of the unused wells had been abandoned.

Mr. Taylor indicated the nearest public water supply for the City of Macon is located at the airport, approximately two miles southwest of the site. An industrial well is in use at a go-cart business located approximately ½ mile west of the site on Barnes Ferry Road. Several businesses along Hawkinsville Road over ½ mile west of the site also operate industrial wells (i.e., Bibb Distributing Company). There are no surface water bodies within one mile of the site; except the drainage ditch that parallels Barnes Ferry Road. The ditch was reportedly impacted circa 1984 when Mr. Hammond observed free product floating in it. No product was presented in the ditch at the time of this investigation.

D. Impacted Environmental Media

1. Private Wells Sampled

(Table 2: Private Wells Sampled)

(Table 3: Description of Private Wells)

(Table 4: Private Well Analytical Results)

(Appendix E: Private Well Laboratory Reports)

(Appendix F: Letter of Sampling Results to Private Well Owners)

(Figure 2: Site Plan)

On October 3, 2001, Clayton sampled six private water wells (PW-1 through PW-6) located in the area of concern. Residents were informed in-person by Clayton personnel of the investigation and permission to sample the wells was obtained from each resident. Samples were collected from the outlet nearest the well. Water was allowed to run for approximately 10 minutes prior to grabbing the sample. Each resident was sent a certified letter from Clayton on October 25, 2001, which provided copies of the laboratory data sheets for the respective wells.

The samples were analyzed for BTEX and PAHs by STL Miami via Intralabs. Analytical results found no detectable levels of these contaminants in any of the well samples except PW-3. No PAHs were detected in PW-3; however, a total BTEX concentration of 423 µg/l was detected (Benzene = 61 µg/l). This well is owned by Mrs. Lillie Grayer who utilizes city water supply for potable use. The contaminated well is 105 feet in depth according to health department records and is used by Mrs. Grayer for irrigation purposes only.

2. Soil Impacts

(Table 5: Soil Analysis Results)

(Appendix G: Boring Logs/Well Construction Details)

(Appendix H: Soil Laboratory Reports)

Splitspoon samples were collected for headspace analysis on approximately three to five foot intervals during the four monitoring well installations (MW-1, MW-2, MW-3, and MW-4). The sample exhibiting the highest headspace reading above the water table from each boring was submitted to the laboratory for analysis. Soil samples were not submitted for analysis from MW-1 due to the difficulties encountered during drilling and holding times for the Encore samplers. A soil sample from 64-66 feet bgs was collected from MW-2 and MW-4. The sample from MW-3 was collected at 59-61 feet bgs, as the material encountered appeared damp at an earlier depth than in the other two borings.

The samples were analyzed for TPH-GRO/DRO, BTEX, and PAHs by STL Miami via Intralabs. Analytical results found no detectable levels of contaminants in MW-2 or MW-3 (with the exception of Xylenes at 0.002 mg/kg in MW-2). BTEX was detected in the sample collected from MW-4 (total BTEX = 62.8 mg/kg). No TPH or PAHs were detected in any of the soil samples.

3. Groundwater Impacts in Monitoring Wells
(Table 6: Groundwater Analysis Results)
(Figure 3: Groundwater Quality Map)
(Figure 4: Benzene Isoconcentration Contour Map)
(Appendix G: Soil Borings with Monitoring Well Details)
(Appendix I: Groundwater Laboratory Results)

Groundwater samples were collected on October 10, 2001 from MW-1 through MW-4. A five-foot PVC decontaminated bailer was utilized to purge wells of a minimum of three casing volumes each. The wells were allowed to recover and groundwater samples were immediately collected using new disposable bailers.

The samples were analyzed for BTEX and PAHs by STL Miami via Intralabs. Analytical results detected benzene at 519 µg/l in MW-1, 6.0 µg/l in MW-2, 4360 µg/L in MW-3, and 2020 in MW-4. Each benzene level detected is above the Federal Drinking Water Standard's MCL of 5.0 µg/l. MCLs for Toluene, Ethylbenzene, and Xylenes were also exceeded in two wells (MW-3 and MW-4). The least contaminated well (MW-2) exhibited a benzene level of 6.0 µg/l. MW-2 is located the greatest distance from the Barnes Ferry Road pipeline.

4. "Fingerprint"/Chromatograph Analysis
(Appendix J: Free Product Laboratory Reports/Letter)

A sample of the free product encountered in MW-3 was submitted to STL Miami via Intralabs for a "fingerprint", or chromatograph, analysis. According to Mr. Thomas Carr, Principal, Intralabs, the analysis was an inconclusive match for JP#4 due to the age or "weathering" of the sample. The chromatograph more closely matched mineral spirits; however, Mr. Carr has indicated that this does not exclude JP#4 as a match for the sample.

5. Geologic/Hydrogeologic Data
(Appendix K: Surface Topography Map)

The site is located within the Fall Line Hills physiographic subprovince of the Coastal Plain Province (LeGrand 1962). The site area is characterized by low rounded hills separated by drainage features tributary to Ocmulgee River. Tobesofkee Creek, lies approximately one mile northeast of the site, while the floodplain of the Ocmulgee river lies 1.6 miles east of the site. Elevations at the site range from 350 msl (Lot 103A) to 366 msl (Lot 105) where MW-3 and MW-4 are located. Topography slopes gently towards the north, west, and south. A swale is present towards the eastern portion of the area (between Lot 103A and Lot 103.)

The site is underlain by Cretaceous age sands and clays of the Tuscaloosa formation. Most of the private wells in the site vicinity are screened in the Tuscaloosa formation which is considered a good aquifer in the area and provides water supply to both domestic and municipal users (LeGrand 1962). There are several sand layers that provide adequate water for most purposes. Based on information provided by a local driller, Mr. Jack Elliot, the depth

to the underlying crystalline rock is over 300 feet.

The Georgia Hydrologic Atlas 20, "Ground Water Pollution Susceptibility Map of Georgia" shows the site as lying within a higher susceptibility area. The area is identified on the Georgia Hydrologic Atlas 18 as within the recharge area for the Cretaceous-Tertiary aquifer system.

Within the site itself, groundwater is encountered at a depth of 67 to 69 feet bgs. The aquifer at this depth is essentially a medium to coarse gray sand. The overlying materials are predominantly sands with some white impure silts and kaolin clays.

5. Groundwater Flow Direction

(Table 7: Groundwater Elevations)

(Figure 5: Potentiometric Surface Map)

Water levels were measured several times during the drilling of monitoring wells MW-1 through MW-4. Readings obtained October 17, 2001 were used to construct the potentiometric map. This map shows the groundwater flow essentially to the east from the site with a hydraulic gradient of .002.

III. CONCLUSIONS

The findings of our investigation indicate that ST Services's pipeline, running parallel to Barnes Ferry Road, is the likely contamination source for the private well and four monitoring wells sampled for this investigation. The identification of the contaminant source as ST Service's pipeline is based on the following findings as discussed in Section C. *Site History*:

- (1) The aerial photograph review indicates the site was historically rural/undeveloped until construction of the current residences circa 1960; indicating no other potential source of contamination.
- (2) The database search report (Vista 2001) found no regulated facilities or reported releases within ½ miles of the site; indicating no other potential source of contamination.
- (3) Residents indicated in onsite interviews that a pipeline leak occurred a number of years ago. Some observed free product in drainage ditches along Barnes Ferry Road. One resident, Mr. Hammond, observed highly contaminated soil being removed from the pipeline area in front of his residence.
- (4) Mr. Horace McSwain, Esq., stated in a telephone interview that he filed suit against ST Services in 1984 on behalf of Mr. Hammond and later Mrs. Pearson whose wells were contaminated with petroleum. A judgement was returned in favor of Mr. Hammond and ST Services paid for the replacement well currently in use at his property.

- (5) Mr. Jack Elliot, well driller, stated in a telephone interview that he was very familiar with the pipeline leaks along Barnes Ferry Road and had installed grounding rods for the pipeline in the past. He recalled observing free product in the ditch at the east end of Barnes Ferry Road. Mr. Elliot installed several replacement wells for site residents, constructing the wells to prevent downward migration of the petroleum contaminated upper aquifer.

Although the dissolved contaminant plume has yet to be delineated, it is apparent that it is widespread. The distance between Mr. Hammond's old contaminated private well and Mrs. Grayer's contaminated private well (PW-6) in an east-west direction is approximately 1200 – 1300 feet. The distance between MW-2 (slightly contaminated) and MW-3 (free product) in a north-south direction is approximately 650 feet. Based on the estimated groundwater flow direction, the subject area and impacted monitoring wells are located upgradient or crossgradient of the release(s) depending of the exact release location(s) along the pipeline.

It also appears probably that the free product plume, while not as widespread as the dissolved plume, is present as a separate plume parallel to the pipeline.

The soils encountered during monitoring well installation do not appear to be contaminated above the water table; although one soil sample (MW-4 at 64-66 feet bgs) exhibited elevated BTEX levels. It appears the contamination has migrated through the soil to the water table at the source area (pipeline on Barnes Ferry Road) and has laterally dispersed through the groundwater to a larger area.

IV. REFERENCES

LeGrand, H.E., *Geology and Ground-Water Resources of the Macon Area, Georgia*, Georgia State Division of Conservation, The Geological Survey Bulletin No. 72, Atlanta, Georgia, 1962.

Barnes Ferry Road Project
6662 Grayer Drive
Bibb County, Facility I.D. 9011078

TABLE 1: FREE PRODUCT REMOVAL

MW-3				
Date of Measurement	Groundwater Elev. (ft)	Product Thickness (ft)	Corrected Water Elev. (ft)	Product Removed (gal)
10-10-01*	359.6	0.66	294.43	One gallon
10-17-01	293.35	1.0	294.10	None removed
TOTAL				One gallon

NOTE: Free product was encountered during well development on 10-9-01 and 10-10-01; however, due to agitation the exact layer thickness could not be determined.

Prepared by: J Date: 10-26
Reviewed by: J CPT Date: 10-26

**TABLE 2
PRIVATE WELLS SAMPLED**

Barnes Ferry Road Project
6662 Grayer Drive
Macon, Bibb County, Georgia
Facility I.D. 9011078

LOT #	PROPERTY OWNER NAME*	OCCUPANT NAME*	WELL IDENTIFIER	ADDRESS*
103A	Bernice Hammond	John Hammond	Not sampled	2031 Barnes Ferry Road
103	Addie Castelow et als.	Addie Mae Castelow	PW-5	6651 Grayer Drive
104A	Russell and Sadie Mae Grayer	Sadie Grayer	PW-1	2055 Barnes Ferry Road
104BA	Wilma Thomas	Wilhemina Pearson	PW-6/MW-1 installed	6662 Grayer Drive
104C	Willie and Annie Kendrick	Charissa Blackmon	MW-2 installed	6650 Grayer Drive
104D	Fannie Mae Johnson Hubbard	same	Not sampled	6640 Grayer Drive
104E	Ervin and Willie Mae Hubbard	Ervin Hubbard	Not sampled	6638 Grayer Drive
104	Viola Johnson et al.	same	Not sampled	6630 Grayer Drive
105	Ned Woodley Grayer	unoccupied	MW-3 and MW-4 installed	2075 Barnes Ferry Road
105A	Roy James Conaway	same	PW-2	2093 Barnes Ferry Road
105B	Denise Williams	unoccupied	Not sampled	6685 Smithfield Road
105C	Willett Thomas	same	Not sampled	6627 Smithfield Road
105D	Roy James Conaway	unoccupied	Not sampled	6675 Smithfield Road
105E	Lillie Ruth Grayer	same	PW-3	6665 Smithfield Road
105F	Charlie Danielly	same	Not sampled	6651 Smithfield Road
105G	Robert and Polly Bentley	same	Not sampled	6645 Smithfield Road
105H	Willie Blackmon	same	Not sampled	6637 Smithfield Road
105-I	Willie Lee and Annie Kendrick	same	PW-4	6659 Smithfield Road
106	Mary Grace Bryant et als.	unoccupied	Not sampled	2048 Barnes Ferry Road
110-A12	Willie Taylor	same	Not sampled	6631 Smithfield Road

* Lot No. and Property Owner's names and addresses were generated from the Bibb County Engineering Department Property Owner's List.

** As determined from onsite interviews conducted by Clayton.

Prepared by:

Date:

Reviewed by:

Date:

[Signature] *11-24*
[Signature] *10-26*

TABLE 3
DESCRIPTION OF PRIVATE WELLS LOCATED IN SUBJECT AREA
SOURCE: MACON-BIBB COUNTY HEALTH DEPARTMENT AND ONSITE INTERVIEWS

Barnes Ferry Road Project
 6662 Grayer Drive
 Macon, Bibb County, Georgia
 Facility I.D. 9011078

Lot No.	Well Permittee	Address	Well Diameter (inches)	Depth (feet)	Use	Year Installed	Sample No.	Comments
103	Addie May Castelow	6651 Grayer Drive	4	115	In Use	1997	PW-5	Well was not contaminated. Resident indicated she had also had an old well which did not work. It was not permitted and is not in use.
103A	Bernice and John Hammond	2031 Barnes Ferry Road	4	103	Not in Use	1985	NS	Resident indicates well was contaminated after pipeline release and was subsequently replaced by pipeline owner.
		2031 Barnes Ferry Road	4	352	In Use	1987	NS	Replacement well drilled by Elliott.
104	Viola Johnson	6630 Grayer Drive	4	140	In Use	1993	NS	Well is located approx. 1200 feet north of pipeline.
104A	No permits on file	2055 Barnes Ferry Road	NA	NA	In Use	NA	PW-1	The sample collected for this investigation was not contaminated. Health dept. has no records of this well.
104BA	Wilhemina Pearson (1)	6662 Grayer Drive	4	146	Not in Use	1991	NS	Replacement well drilled by Elliott (not paid for by the pipeline). Ms. Pearson seeks reimbursement.
	Wilhemina Pearson (2)	6662 Grayer Drive	24	70 (approx.)	Not in Use	1984	PW-6	Sampled by health dept. for BTEX in 1988. Total BTEX was detected at 207 ug/l. Abandonment was recommended by health department (not abandoned). Well sample collected for this investigation was not contaminated.
104C	Lillie Blackman	6650 Grayer Drive	2	NA	Not in Use at this site	1996	NS	This resident uses city water; however, this well is used by Lot 105H. MW-2 is installed on this property.
104D	H. Hubbard	6640 Grayer Drive	NA	NA	In Use	1994	NS	Well is located approx. 1000 feet north of pipeline. It is shared by Lot 104E.
104E	No permits on file	6636 Grayer Drive	NA	NA	In Use	1994	NS	See above.
105	No permits on file Site is vacant and undeveloped.	2075 Barnes Ferry Road	2	NA	Not in Use	NA	NS	Owner plans to put mobile home on property. Two monitoring wells installed (MW-3/MW-4). Clayton advised him in-person to utilize city water.
105A	Roy J. Conway	6693 Smithfield Road/or 2093 Barnes Ferry Road	NA	130-140	In Use	NA	PW-2	Replacement well drilled by Cleveland Johns. The well sample collected for this investigation was not contaminated.

TABLE CONTINUED

Lot No.	Well Permittee	Address	Well Diameter (Inches)	Depth (feet)	Use	Year Installed	Sample No.	Comments
105B	Denise McCarthy	6685 Smithfield Road	4	150	Not in Use	1992	NS	Residence onsite is vacant. A former property resident (Mrs. Parks) indicated to EPD in 1996 that her well was contaminated and was replaced by pipeline company (Appendix I - EPD letter dated 6-14-96). A1
105C	No permits on file	6627 Smithfield Road	NA	NA	In Use	NA	NS	No other information available.
105D	Roy J. Conaway	6675 Smithfield Road	NA	NA	Not in Use	NA	NS	House is razed. A well was not observed by Clayton.
105E	Lillie R. Grayer	6665 Smithfield Road	4	105	Irrigation Only	1984	PW-3	Total BTEX detected at 423 ug/l. Resident utilizes city water for potable supply.
105F	Mr. Willie Kendrick	6651 Smithfield Road	24	71	Not in Use	1985	NS	"Dug" well
105G	Robert Bentley, Sr.	6645 Smithfield Road	4	106	In Use	1991	NS	No other information available.
105H	No permits on file	6637 Smithfield Road	NA	NA	In Use	NA	NA	Resident uses well at Lot 104C
105I	No permits on file	6659 Smithfield Road	NA	NA	Irrigation Only	NA	PW-4	The sample collected for this investigation was not contaminated.
204	Louise McNair	1725 Barnes Ferry Road	4	121	NA	1992	NS	Residence not located in investigated area.

* Wells were sampled by Clayton on October 3, 2001.

Notes:

NS = Not Sampled

NA = Not Available (from health department)

Source: Information obtained from Macon-Bibb County Health Department records and onsite interviews conducted by Earl Titcomb, Senior Geologist, Clayton (see Records of Communication).

Barnes Ferry Road Project
6662 Grayer Drive
Bibb County, Facility I.D. 9011078

**TABLE 4a: PRIVATE WELL SAMPLING
GROUNDWATER ANALYTICAL RESULTS
(VOLATILE ORGANIC COMPOUNDS)**

Well Number	Date Sampled	Benzene (ug/l)	Toluene (ug/l)	Ethyl-benzene (ug/l)	Xylenes (ug/l)	Total BTEX (ug/l)
PW-1	10/3/01	BDL	BDL	BDL	BDL	BDL
PW-2	10/3/01	BDL	BDL	BDL	BDL	BDL
PW-3	10/3/01	61.4	83.2	8.89	270.9	242.39
PW-4	10/3/01	BDL	BDL	BDL	BDL	BDL
PW-5	10/3/01	BDL	BDL	BDL	BDL	BDL
PW-6	10/3/01	BDL	BDL	BDL	BDL	BDL
Applicable Standards		5	100	700	10000	-

**TABLE 4b: PRIVATE WELL SAMPLING
GROUNDWATER ANALYTICAL RESULTS
(POLYNUCLEAR AROMATIC HYDROCARBON)**

Sample Location	Date Sampled	Detected PAH Compounds (ug/l)						
PW-1	10/3/01	None						
PW-2	10/3/01	None						
PW-3	10/3/01	None						
PW-4	10/3/01	None						
PW-5	10/3/01	None						
PW-6	10/3/01	None						
Applicable Standards		N/A						

Prepared by: JEDate: 10-20Reviewed by: EFTDate: 10-20

Barnes Ferry Road Project
6662 Grayer Drive
Bibb County, Facility I.D. 9011078

**TABLE 5a: SOIL ANALYTICAL RESULTS
(VOLATILE ORGANIC COMPOUNDS)**

Sample Location	Depth (ft) bgs	Date Sampled	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH (mg/kg)
MW-2	64-66	10/8/010	BDL	BDL	BDL	0.0028	0.0028	BDL
MW-3	59-61	10/8/01	BDL	BDL	BDL	BDL	BDL	BDL
MW-4	64-66	10/9/01	.019	0.006	0.006	62.8	62.8	BDL
Applicable Standards			0.005	0.400	0.370	20.00	-	-

**TABLE 5b: SOIL ANALYTICAL RESULTS
(POLYNUCLEAR AROMATIC HYDROCARBON)**

Sample Location	Depth (ft) bgs	Date Sampled	Detected PAH Compounds (mg/kg)						Total PAHs (mg/kg)
MW-2	64-66	10/8/010	None						BDL
MW-3	64-66	10/8/01	None						BDL
MW-4	64-66	10/9/01	None						BDL
Applicable Standards			N/A						

NOTE:: bgs = below ground surface

Prepared by: JK Date: 10-2-00
Reviewed by: JEFT Date: 10-2-00

Barnes Ferry Road Project
6662 Grayer Drive
Bibb County, Facility I.D. 9011078

**TABLE 6a: GROUNDWATER ANALYTICAL RESULTS
(VOLATILE ORGANIC COMPOUNDS)**

Well Number	Date Sampled	Benzene (µg/l)	Toluene (µg/l)	Ethyl-benzene (µg/l)	Xylenes (µg/l)	Total BTEX (µg/l)
MW-1	10/10/01	519	395	334	2900	4148
MW-2	10/10/01	6.34	7.10	10.8	134.7	158.94
MW-3	10/10/01	4630	3460	1890	14920	24900
MW-4	10/10/01	2020	2190	1250	10070	15530
Applicable Standards		5	1000	700	10000	

Prepared by:

Reviewed by:

Date: 10-26

Date: 11-26

Barnes Ferry Road Project
 6662 Grayer Drive
 Bibb County, Facility I.D. 9011078

**TABLE 6b: GROUNDWATER ANALYTICAL RESULTS
 (POLYNUCLEAR AROMATIC HYDROCARBON)**

Sample Location	Date Sampled	Detected PAH Compounds (mg/kg)					Total PAHs (mg/kg)
		Naphthalene	2-Methylnaphthalene	1-Methylnaphthalene			
MW-1	10/10/01	18.7	BDL	BDL			18.7
MW-2	10/10/01	BDL	BDL	BDL			BDL
MW-3	10/10/01	112.0	40.5	28.4			180.9
MW-4	10/10/01	60.6	15.9	14.0			90.5
Applicable Standards		N/A					

Prepared by: [Signature] Date: 10-26
 Reviewed by: [Signature] Date: 10-26

Barnes Ferry Road Project
6662 Grayer Drive
Bibb County, Facility I.D. 9011078

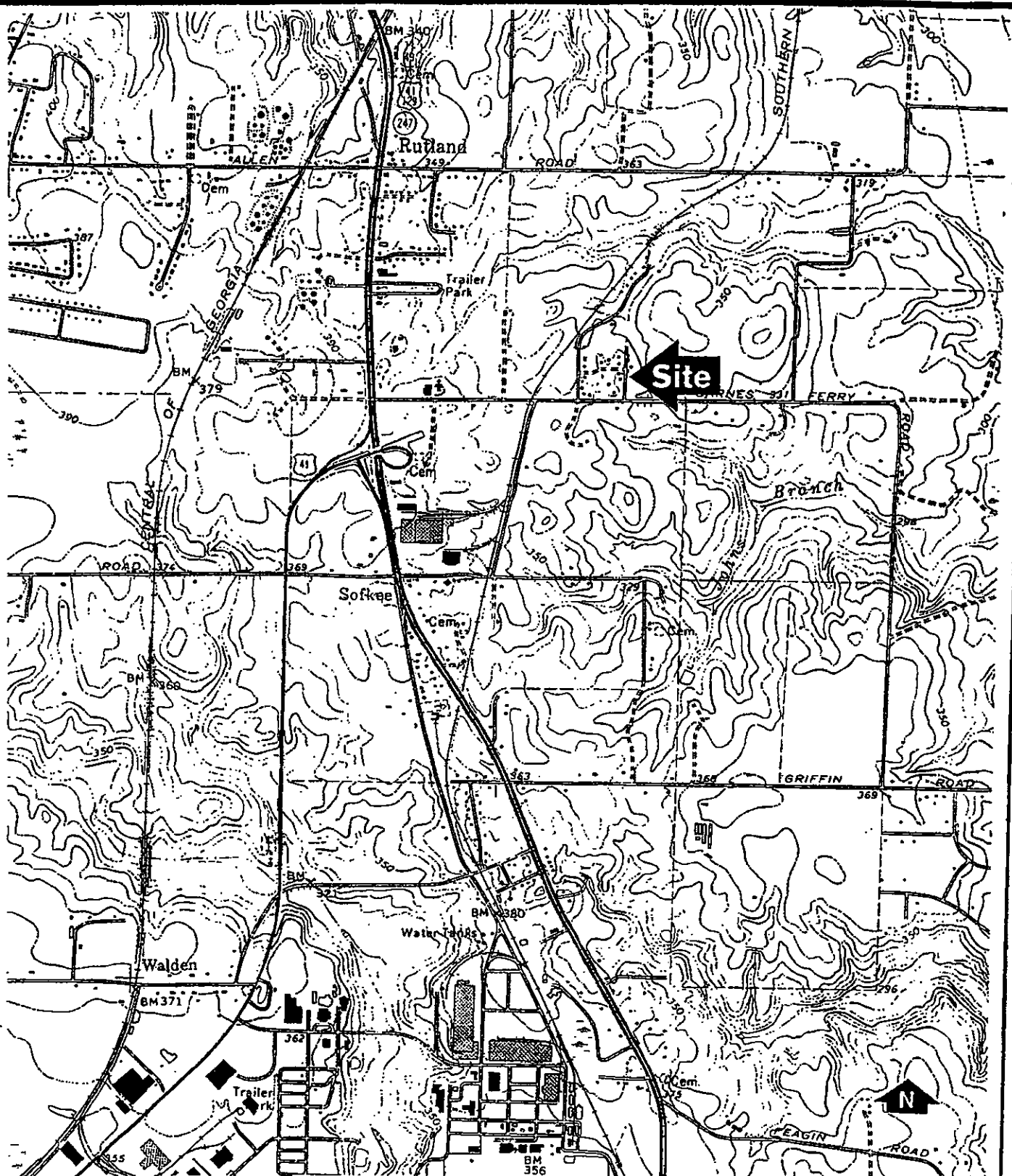
TABLE 7: GROUNDWATER ELEVATIONS

Well Number	Date Measured	Ground Surface Elev. (ft) (approx.)	Top of Casing Elev. (ft)	Depth of Screened Interval (ft)	Depth of Free Product (ft)	Water Depth (ft)	Product Thickness (ft)	Spec. Grav. Adjustment	Corrected Groundwater Elev. (ft)
MW-1	10/17/01	362.9	362.89	62.5 – 78.5	N/A	68.92	N/A	N/A	293.97
MW-2	10/17/01	361.7	361.46	64.0 – 80.0	N/A	67.89	N/A	N/A	293.57
MW-3	10/17/01	359.8	359.60	56.1 – 72.1	65.25	66.25	1.0	0.75	294.10
MW-4	10/17/01	364.0	364.22	65.0 – 81.0	N/A	69.87	N/A	N/A	294.35

NOTES:

- (1) Screens were 15.0 feet in length with a 0.95' (1.0') washplug added to interval.
- (2) Elevations were surveyed to the Top of Casing (TOC) of each well. Ground surface elevations are approximate.
- (3) TOC elevations are all relative to the assumed elevation of 359.6' msl at MW-3 (TOC). This is approximately the ground surface elevation near MW-3 (Appendix X – Surface Topography Map provided by Macon-Bibb County Engineering Department).

Prepared by: *[Signature]* Date: 10-26
Reviewed by: *[Signature]* EPT Date: 10-26



EXCERPT FROM USGS 7.5 MINUTE SERIES TOPOGRAPHIC MAP, WARNER ROBBINS NW, GEORGIA QUADRANGLE (1985)

2000 1000 0 2000
Scale: 1" = 2000'



Barnes Ferry Road Project
6662 Grayer Drive
Macon, Georgia

SITE VICINITY MAP

Figure No.

1

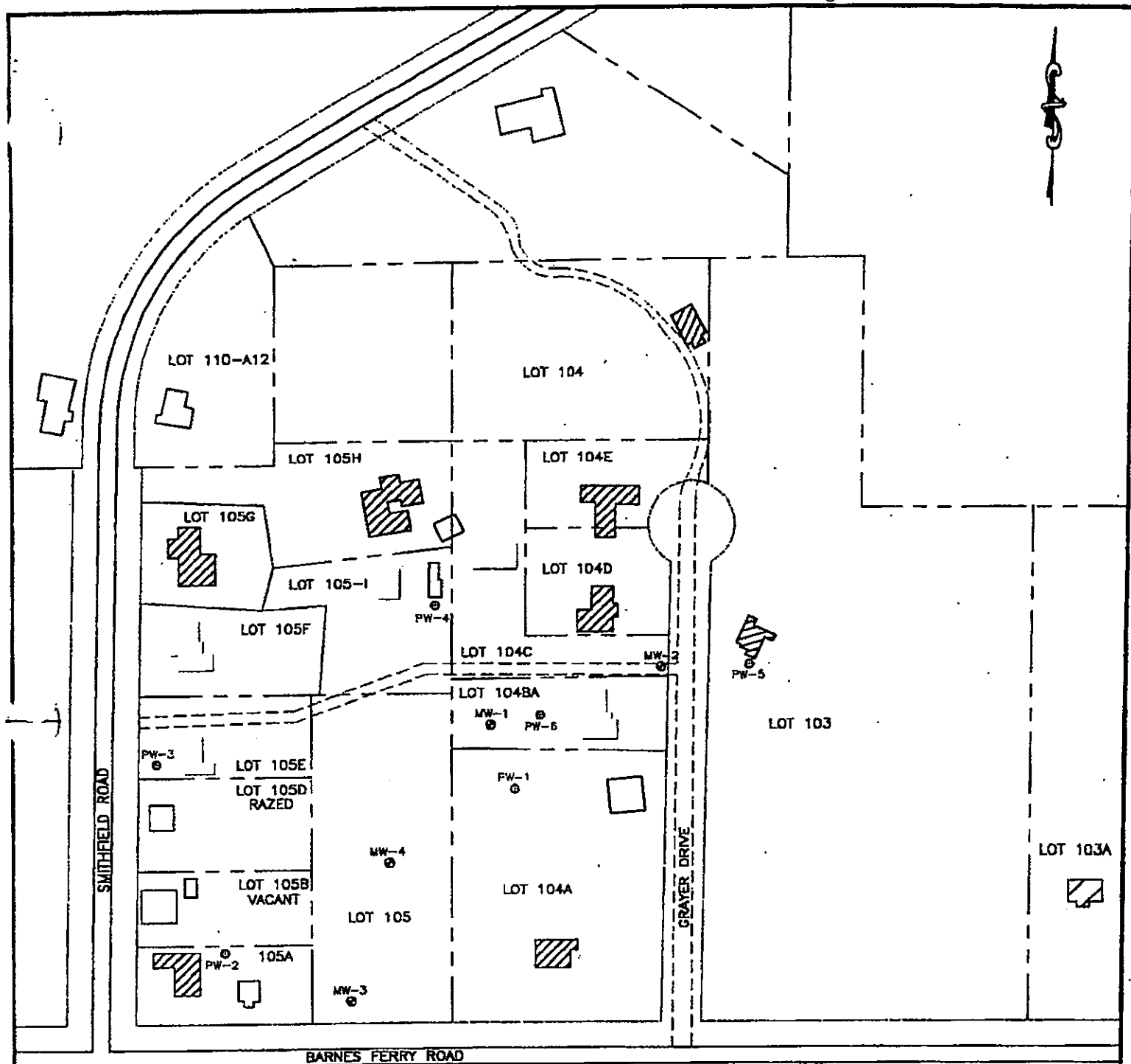
Job No.: 20-01480.03

Scale: 1"=2000'

Date: 10-15-01

Drawn By: M.V.

Reviewed By: J.T.



● PRIVATE WELLS SAMPLED 10-03-01
 ● MONITORING WELLS (Installed 10-01)
 ▨ RESIDENT USING WELL WATER
 RESIDENT USING CITY WATER
 LOT 104A LEGAL DESCRIPTION



Barnes Ferry Road Project
6662 Grayer Drive
Macon, Georgia

SITE PLAN

Figure No.

2

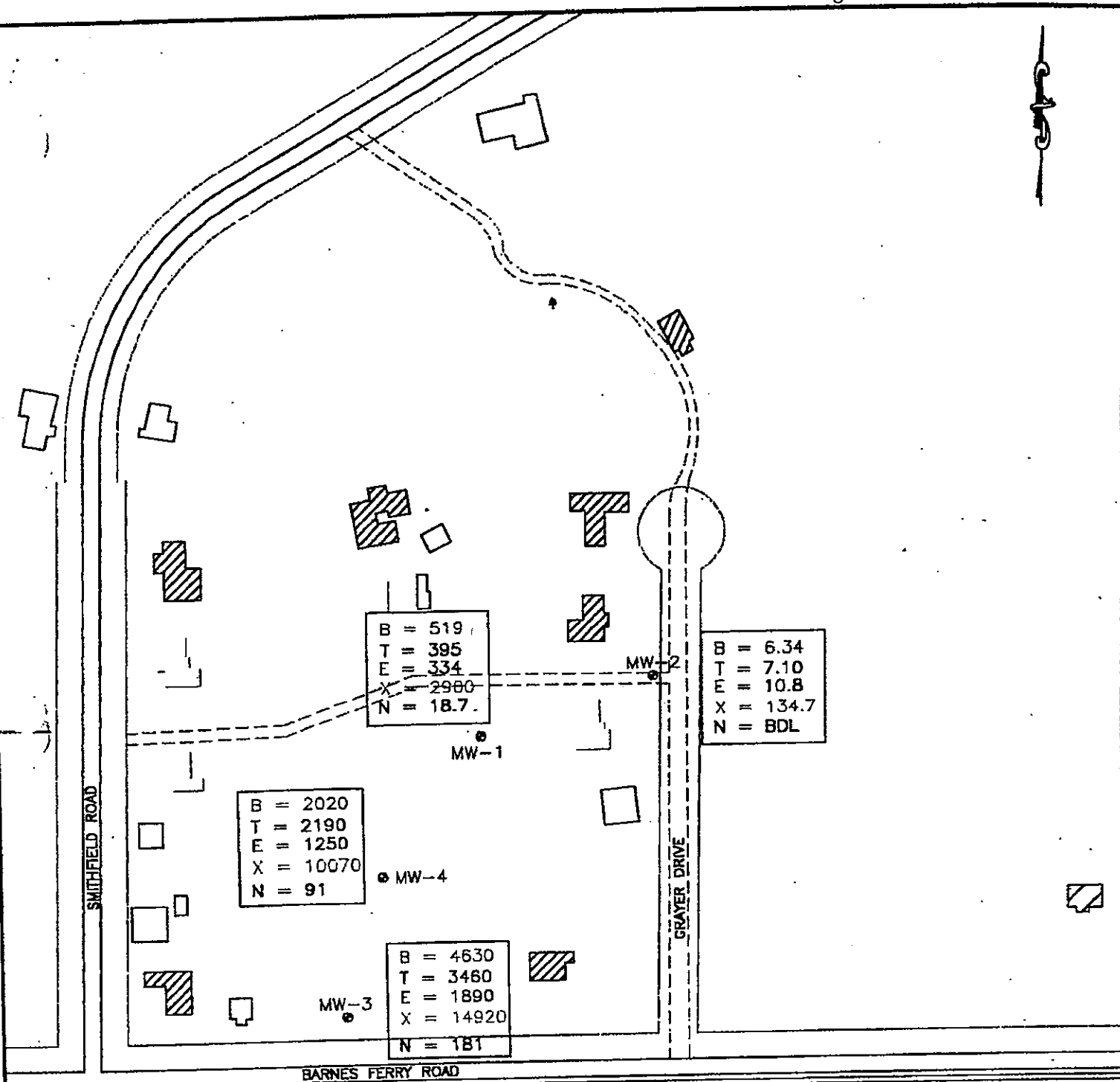
Job No.: 20-901480.03

Scale (approx):
1 = 200

Date: 10-15-01

Drawn By: M.V.

Reviewed By: J.T.



NOTES: ALL CONCENTRATIONS SHOWN IN UG/L.
 NAPHTHALENE AND METHYLNAPHTHALENE (1 AND 2) WERE THE ONLY PAHS DETECTED.
 N = SUM OF TOTAL NAPHTHALENE CONCENTRATIONS DETECTED.

LEGEND

- MONITORING WELL
- B BENZENE
- T TOLUENE
- E ETHYLBENZENE
- X XYLENES
- N NAPHTHALENES



Barnes Ferry Road Project
 6662 Grayer Drive
 Macon, Georgia

GROUNDWATER CONTAMINANT CONCENTRATIONS

Figure No.

3

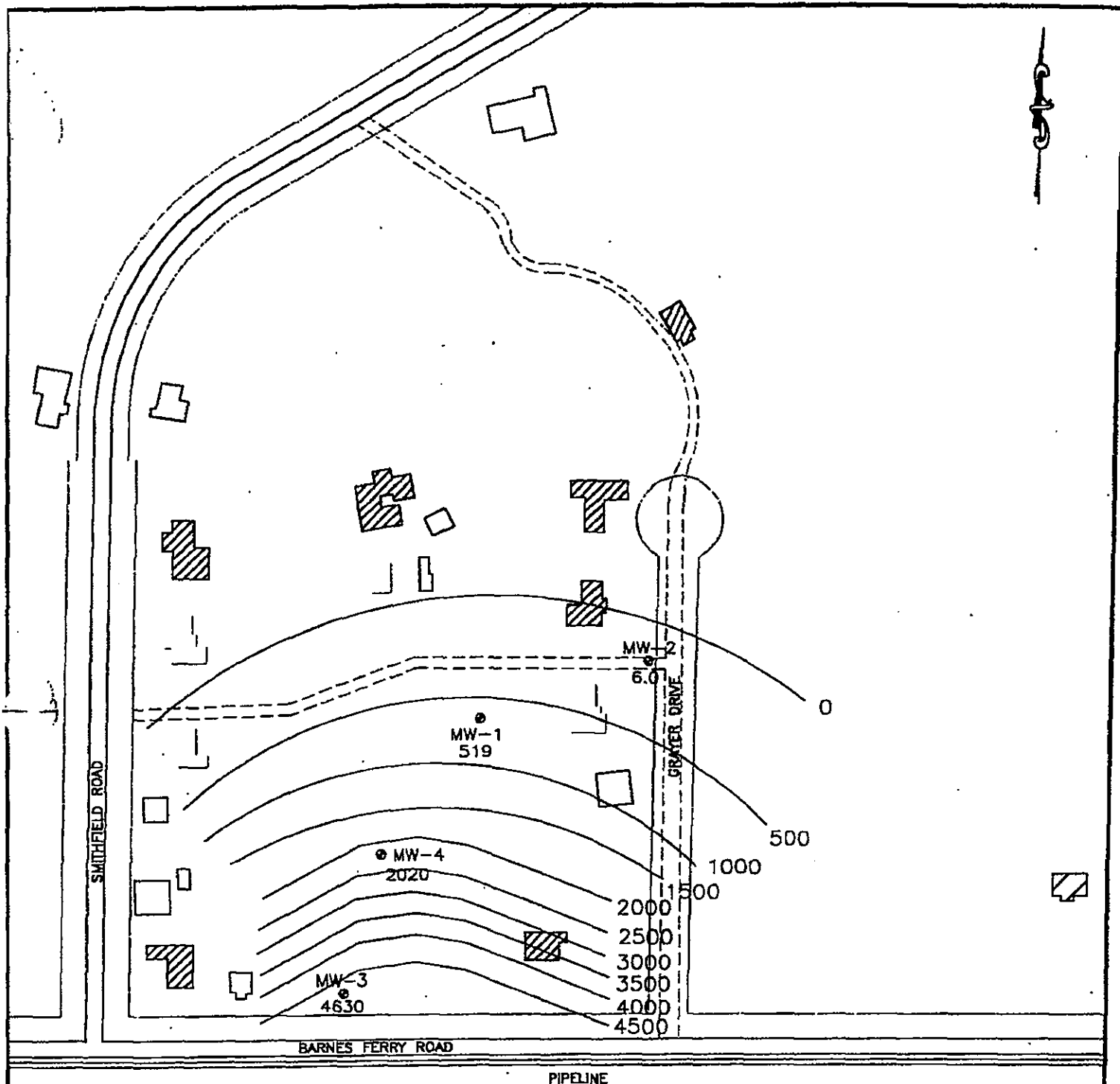
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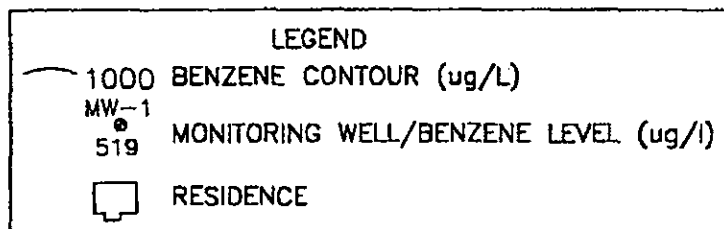
Date: 10-15-01

Drawn By: M.V.

Reviewed By: J.T.



PIPELINE



Barnes Ferry Road Project
6662 Grayer Drive
Macon, Georgia

BENZENE ISOCONCENTRATION CONTOURS

Figure No.

4

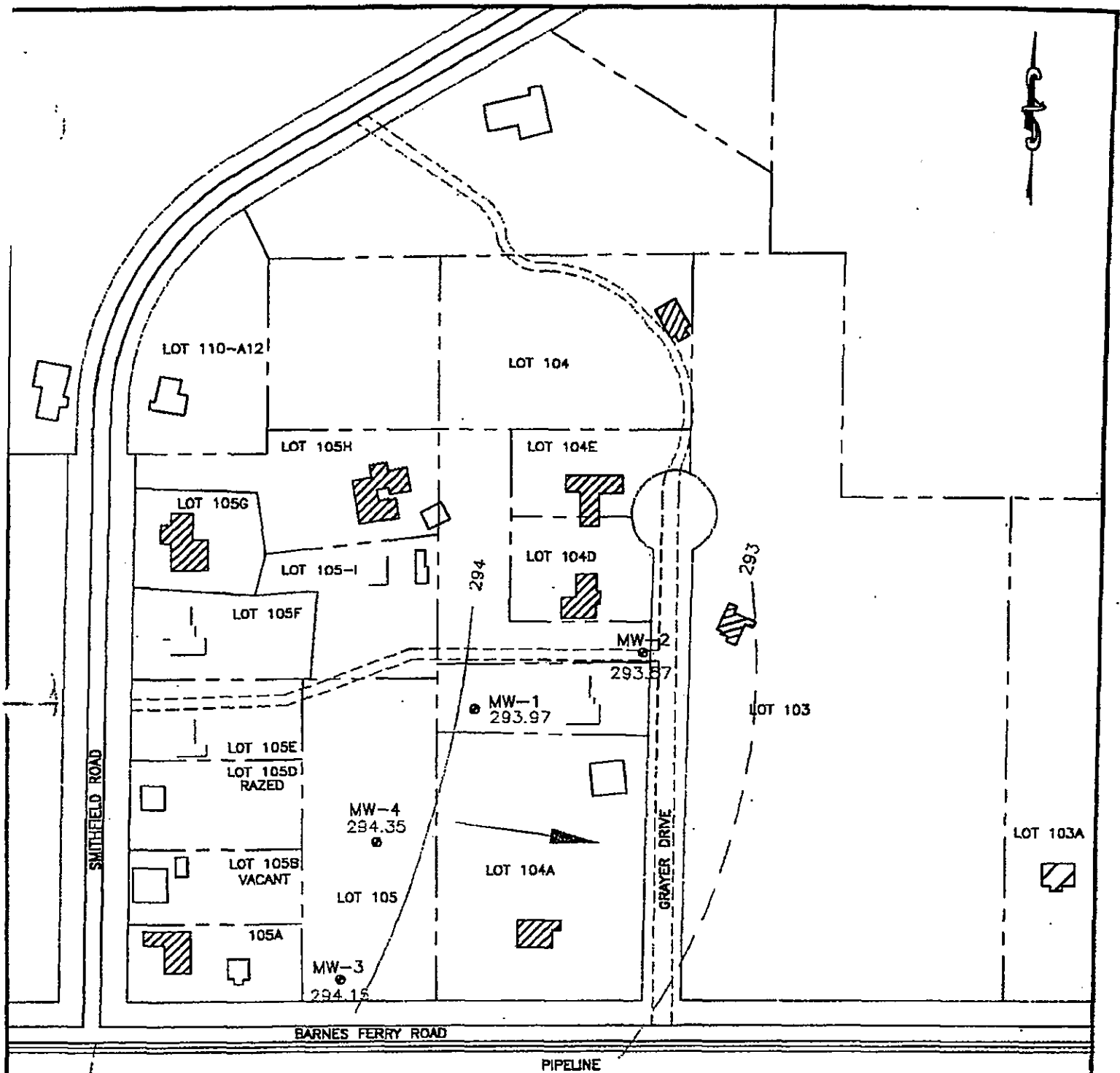
Job No.: 20-01480.03

Scale (approx):
1 = 200'

Date: 10-15-01

Drawn By: M.V.

Reviewed By: J.T.



● MONITORING WELL
 294.35 GROUNDWATER ELEVATION
 (OCTOBER 17, 2001)
 LOT 104A LEGAL DESCRIPTION



Barnes Ferry Road Project
 6662 Grayer Drive
 Macon, Georgia

POTENTIOMETRIC SURFACE MAP

Figure No.

5

Job No.: 20-901480.03 Scale (approx): 1 = 200 Date: 10-15-01 Drawn By: M.V. Reviewed By: J.T.

Georgia Department of Natural Resources

205 Butler Street, S.E., Floyd Towers East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Harold F. Reheis, Director

Environmental Protection Division

June 14, 1996

Mr. Roger Carter
Georgia Geological Survey
19 Martin Luther King Drive
Room 400
Atlanta, Georgia 30334

ST Services Pipeline
Barnes Ferry Road
Macon, Bibb County
Facility ID: 9011078

Dear Mr. Carter:

This letter requests the transfer of the above-referenced unregulated release from the UST Management Program to the State of Georgia Geologic Survey (GGS). In a recent telephone conversation you stated that the GGS would be willing to oversee the assessment and cleanup of the above-referenced site. A copy of the file is enclosed.

The following is a summary of the history of the site: The above-referenced site area was inspected by EPD personnel on April 24, 1996 in response to reported petroleum contamination of the former water supply well owned by Mrs. Pearson. Her well had been replaced several years ago as a result of the contamination. We collected a sample from the outdoor tap after letting it run for 10 minutes. The sample results did not show any contamination of the new well, but Mrs. Pearson seeks compensation for replacement of her former contaminated well from the responsible party.

According to the neighbors, several other nearby residential water supply wells across from a petroleum pipeline had been impacted and were replaced by the pipeline company, ST Services. One neighbor, Mrs. Parks, stated that her husband had assisted in the repair of ST Services' pipeline across the road from her house, and that her well had been replaced by ST Services after becoming contaminated with petroleum. Several other wells exist in the area and may be impacted by petroleum at this time or may become so in the future. The contaminated water supply wells indicate that the plume may extend several hundred feet from the pipeline.

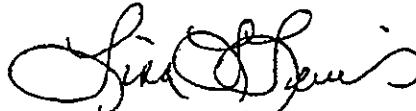
ST Services provides petroleum for Warner Robbins AFB and stated that they were unaware that Mrs. Pearson's well had been impacted in the past. They acknowledged that several releases had occurred in the past and had necessitated the replacement of some private water supply wells, but that current operating practices had reduced the number of releases.

Mr. Carter
June 14, 1996
Page Two

No UST sites were noted within a half-mile radius of the impacted wells. In light of the above-referenced information, it appears that the source of the drinking water well impact is the ST Services pipeline. Therefore, this release is not regulated by the USTMP.

If you have any questions or comments, please contact me at (404) 362-2687.

Sincerely,



Lisa L. Lewis
Advanced Geologist
Corrective Action Unit

Enclosures

cc: Randy Williams, GEPD

LLL:ll

File: (CA) Bibb; 9011078; ST Services Pipeline

g:\9011078.ltr

Georgia Department of Natural Resources

205 Butler Street, S.E., Floyd Towers East, Atlanta, Georgia 30334

Lonice C. Barrett, Commissioner

Harold F. Reheis, Director

Environmental Protection Division

June 10, 1996

MEMORANDUM

TO: Randy Williams *[Signature]*
FROM: Lisa L. Lewis *[Signature]*
SUBJECT: Bibb; 9011078; "Unknown Facility"/ST Services Pipeline

This memorandum is to document the transfer of this unregulated release from our program to the Georgia Geologic Survey. Mr. Roger Carter of the GGS has stated that the GGS would be willing and able to oversee the assessment and cleanup of the above-referenced site. A letter to Mr. Carter requesting that the GGS accept this site into their files is attached.

The above-referenced site was inspected by EPD personnel on April 24, 1996. Contamination had been reported in the former water supply well owned by Mrs. Pearson. Her well had been replaced several years ago. We collected a sample from the outdoor tap after letting it run for 10 minutes. The sample results did not show any contamination of the new well, but Mrs. Pearson seeks compensation for replacement of her former contaminated well from the responsible party.

According to the neighbors, several other nearby residential water supply wells across from the petroleum pipeline had been impacted and were replaced by the pipeline company, ST Services. One neighbor, Mrs. Parks, stated that her husband had assisted in the repair of the pipeline across the road from her house, and that her well had been replaced by ST Services after becoming contaminated with petroleum. Several other wells exist in the area and may be impacted by petroleum at this time or may become so in the future. The contaminated water supply wells indicate that the plume may extend several hundred feet from the pipeline.

ST Services provides petroleum for Warner Robbins AFB and stated that they were unaware that Mrs. Pearson's well had been impacted in the past. They acknowledged that several releases had occurred in the past and necessitated the replacement of several drinking water wells, but that current operating practices had reduced the number of releases.

No UST sites were noted within a half-mile radius of the impacted wells. In light of the above-referenced information, it appears that the source of the drinking water well impact is the ST Services pipeline. Therefore, this release is not regulated by the USTMP and oversight of assessment and remediation should be transferred to the GGS.

LLL:ll

File: (CA) Bibb; 9011078; "Unknown Facility"/ST Services

g:\9011078.mem

attachment